

Final Draft

**Department of Defense
Honeywell Strategic Alliance
Relationship
Quality Assurance**



**Rapid Improvement Team Report
December 15-17, 1999**

Department of Defense Quality Assurance Strategic Alliance

FOREWORD

The Department of Defense (DoD) is currently engaged in a “Revolution in Business Affairs”. To succeed in this revolution requires the exploitation of technology advancements and the adoption of new operational and business processes, which will ultimately result in a reduced infrastructure that is lean, agile and more effective at supporting the warfighter. To support this effort and institutionalize the transformation process, the Senior DoD leadership established the Change Management Center (CMC) under the leadership of the Deputy Under Secretary of Defense (Acquisition Reform). As part of its mission, the CMC works with DoD agencies to identify high payoff opportunities and provides resources to accelerate the identification and implementation of process and performance improvements.

The CMC utilizes “Rapid Improvement Methodology ” to bring together diverse stakeholders within the Department, industry associations and other partners to develop and implement business process improvement solutions. These rapid improvement activities focus their attention on developing, implementing, and measuring new and innovative business practices while overcoming obstacles to acquisition and logistics reform (ALR).

This Report summarizes the findings and recommendations produced by a Rapid Improvement Team chartered by Stan Soloway, Deputy Under Secretary of Defense (Acquisition Reform) (see Appendix A) to explore options and forward recommendations for improving the efficiency and cost of government quality oversight by eliminating unnecessary source inspections, integrating military and commercial practices, and developing and implementing alternative methods for ensuring quality products. The results of this effort will provide the framework for improving the DoD approach to quality assurance and employs Rapid Improvement Teams (RIT) methodology as the catalyst for improvement.

Final Draft

The findings and recommendations in this report reflect the collective view of approximately 30 representatives of key stakeholders in the advancement of the use of an improved quality methodology for all contracts within the defense acquisition community. Represented agencies included Office of the Secretary of Defense (OSD), DoD Inspector General(IG), Defense Logistics Agency (DLA), Defense Contract Management Command (DCMC) (headquarters and field sites), Defense Logistics Supply Center (DLSC), Defense Acquisition University (DAU), Federal Aviation Administration (FAA), as well as service representatives from the Air Force, Army, Navy, and Honeywell (see Appendix B). The RIT was chartered on 6 December 1999 by the Deputy Under Secretary of Defense (Acquisition Reform) and convened on 15-17 December 1999.

The Change Management Center extends its thanks and appreciation to all of the RIT participants for their time and contributions to this report.

Final Draft

TABLE OF CONTENTS

FOREWORD.....	ii
List of Figures.....	v
List of Tables.....	v
I. EXECUTIVE OVERVIEW	1
II. STAKEHOLDER EXPECTATIONS	4
Our Mission is.....	4
Our Mission is not.....	4
Keys to Success.....	5
Landmines to avoid.....	5
The Case For.....	6
The Case Against.....	6
III. PROBLEM ANALYSIS	8
IV. COMMERCIAL BENCHMARKING BEST PRACTICE REVIEW	14
V. VISION FOR CHANGE.....	15
The Overall Goal of the DoD/Honeywell QA Relationship is:.....	15
Quality Assurance Innovation.....	17
Phase I - Requirements and Request for Proposal Process	19
Phase II - Joint Quality Assurance Planning	21
Phase III - Process Verification Monitoring & Continuous Improvement	23
Phase IV - Acceptance & Payment Process	25
VI. SCORECARD.....	26
Guiding Principles.....	26
Measuring Performance	26
Elements of a Joint QA Plan	28
VII. 60 DAY ACTION PLANS	36
VIII. HONEYWELL SITES IMPLEMENTATION PLAN (DRAFT)	39
APPENDIX A CHARTER	43
APPENDIX B ATTENDEE LIST	46
APPENDIX C HONEYWELL FACILITY ANALYSES	48
APPENDIX D SIX-SIGMA BRIEFING	61
APPENDIX E LIST OF ABBREVIATIONS.....	70
APPENDIX F NOTIONAL ACCEPTANCE AND PAYMENT PROCESS	71

Final Draft

List of Figures

Figure 1. Common Quality Process Map.....	8
Figure 2. Revised Common Quality Process Map.....	18
Figure 3. Performance Measurement Scorecard	27
Figure 4. Risk Analysis and Rating Process “Likelihood and Consequences”	29
Figure 5. Surveillance Engagement Guide.....	30
Figure 6. Payment Process Overview	71

List of Tables

Table 1. Common Process Gap Analysis.....	9
Table 2. Transitioning From The Old Way Of Doing Business To The New Way Of Doing Business Will Require The Following Shifts	17

I. EXECUTIVE OVERVIEW

The Department of Defense continues its efforts to maximize the value of Defense dollars while ensuring the quality of the products and services it acquires. The effort detailed in this report attempts to clarify the most efficient and effective approach to encouraging and supporting an improved integrated quality relationship with suppliers across the Department of Defense that increases performance expectations, delivers greater value and shares best practices.

The Quality Assurance Rapid Improvement Team (RIT) was chartered (see Appendix A) to improve the efficiency and cost effectiveness of quality assurance practices, by eliminating unnecessary source inspections, integrating military and commercial practices, and developing and implementing alternative methods for ensuring quality products. The RIT examined current gaps and barriers, which are inherent in quality engagement today as well as successes, lessons learned and best practices in quality management both within the Department of Defense and from industry.

The Team focused on driving “best-practice” quality assurance methodologies that will reduce the level of DoD engagement and still assure optimal level of quality and reliability of products supplied through strategic supplier alliances. Based on its analysis, the RIT reached consensus on the following findings that form a platform for advancing a quality relationship within the defense acquisition community.

- There is a need to develop a joint quality assurance planning process that appropriately balances the level of risk with the level of monitoring required within our Strategic Supplier Alliance (i.e., common plan, common process).
- There needs to be a jointly developed quality assurance plan that ensures suppliers and DoD stakeholders are utilizing a common set of metrics to monitor and manage process and product quality levels.
- Honeywell and DCMC must establish plans and processes that drive early involvement of both DCMC, Honeywell and other strategic suppliers in the Program Management Organizations (PMO) activities associated with the development of contract flow-downs that drive Quality Assurance (QA) plans.

Final Draft

- A case for action must be developed that encourages PMO, DCMC and suppliers to engage in the implementation of more efficient quality assurance processes.
- Early involvement of joint Honeywell/DCMC working teams is necessary to fully develop contract quality requirements capitalizing on industry/DCMC insights thereby reducing unnecessary quality process requirements.
- DCMC/Honeywell must jointly develop and implement actions that will remove barriers, streamline QA processes, empower appropriate personnel with the tools and knowledge to improve efficiency and operations costs by eliminating unnecessary inspection, process inefficiency and sub-optimization.
- Honeywell and DCMC must work together in a new strategic alliance, focusing on mutually developed vision, mission, values, goals which will lead to successful achievement of expected outcomes. A performance management plan must also be mutually developed, implemented, and supported which will set targets for improved performance, establish metrics for tracking progress, and produce valid reliable data for making management decisions.

Based on these findings, the RIT developed a recommended vision and goals, scorecard, roadmap and implementation plan for executing the agreed upon actions necessary for achieving the desired performance improvements established by the RIT.

Highlights of these recommendations are:

1. Adoption of a joint vision for quality assurance that emphasizes the creation of a strategic partnership between DCMC and its industry partners is a key element of reinvention and must be firmly established before implementation of training, process improvement, and performance measurement action plans.
2. Training in six-sigma quality assurance methodology must be a key focus. Actions to determine training needs, identify training recipients, and develop and implement six-sigma training have been incorporated into a milestone plan that will achieve program initiation within 60 days.
3. Effective implementation of QA process improvements are predicated on process stakeholders being able to develop, access, and share knowledge. Actions to implement a knowledge management community of excellence in quality assurance need to be addressed in a joint DCMC/Honeywell teaming environment and executed through joint implementation teams.
4. Integration of performance improvement action plans need to be coordinated and facilitated through the use of multiple communication systems, (i.e. joint meetings, internet Websites, etc.). Site plans should leverage best practices of both industry and government.

Final Draft

5. Efforts to develop an effective quality assurance Strategic Supplier Alliance (SSA) relationship between DCMC and Honeywell should be integrated with all other Honeywell/DLA SSA efforts.
6. DCMC and Honeywell must jointly develop and publish new guidance/guidelines for agreed to process improvements.
7. Successful process improvements need to be characterized and evaluated for change management. Honeywell/DCMC/PMO teams need to develop meaningful metrics to measure progress towards achieving RIT goals. Joint Site Teams must be responsible for goal setting, data collection, performance assessment, managing results, and sharing lessons learned.
8. Utilize existing Single Process Initiative (SPI) process to support resulting modifications to contracts, and use of “certificates of conformance” where applicable.

The balance of this report provides analyses and details for supporting these recommendations.

II. STAKEHOLDER EXPECTATIONS

The Rapid Improvement Team began its effort with a “listening” session to hear the voices of each stakeholder group with respect to their hopes and major concerns regarding the charter to improve the quality assurance process.

Outlined below are consensus points across those representing user groups as well as the support staffs from the Services, OSD and support activities.

Our Mission is....

- To drive “best-practice” quality assurance methodologies that will improve contractor performance and reduce the level of DoD engagement required for assuring an optimal level of quality and reliability of products supplied through strategic supplier alliances.
- To develop a joint government/industry quality assurance planning process that smartly balances the level of risk with the level of monitoring required to insure quality within a Strategic Supplier Alliance (i.e., common plan, common process).
- To implement an improved quality assurance plan that ensures all suppliers and DoD stakeholders are utilizing a common set of metrics to monitor and manage quality assurance processes and products.
- To establish processes that encourage program management organization (PMO) to include early involvement of both DCMC and their suppliers in the activities associated with both requirements gathering and the development of contract flow downs that drive QA requirements.
- To develop the case for action that drives PMOs, DCMC and suppliers to implement and participate in a mutually agreed to process model for improving quality assurance.
- Provide the warfighter with the highest quality product available.

Our Mission is not....

- To totally eliminate government source inspection (GSI).
- To eliminate necessary source inspection.
- To degrade customer confidence in DCMC.
- To reinvent the wheel.

Final Draft

- To use current processes and procedures as a crutch or excuse for not moving forward.
- To reduce any of the Program Manager's authority over their programs.
- To improve payment cycles.
- To increase Honeywell manpower requirements.
- To eliminate PMO delegated inspections without approval of PMO.

Keys to Success...

Stakeholders and sponsors alike agreed that the keys to achieving the objectives of this RIT effort include:

- Creating a stronger partnership between customers (PMOs), the suppliers and DCMC.
- Careful examination of Honeywell's recommendations for implementing capabilities that allow for reduced DCMC engagement.
- Clearly defining criteria for achieving reduced government engagement.
- Agreement to and utilization of a common set of quality assurance expected outcomes, outputs, metrics, processes and Six Sigma approach required to achieve performance improvements.
- Defining a common language for quality assurance methodology.
- Building in flexibility for adaptation of supplier process changes.
- Adopting a common methodology for driving process improvement.
- Committing to statistical rigor.
- Piloting a product/process line that can be used as a success story.

Landmines to avoid...

- Local or isolated anomalies when considering solutions.
- Exclusion of PMO's from process development, implementation, and integration.
- Any solutions that increase cost or cycle-time.

Final Draft

The Case For...

- Quality Assurance model methodology will be statistically sound, based on Six Sigma concepts.
- Metrics will be jointly developed, owned and utilized by process stakeholders.
- All stakeholders will be able to monitor process performance and take corrective actions for generating improvement.
- Six Sigma methodology will improve quality and reliability of products/processes.
- Sharing of data will improve performance.
- Partnering and implementing joint process improvement will reduce risks to all stakeholders, improve efficiency and reduce costs.
- Model quality assurance process methodology will result in improved communication across services and with DoD agencies.
- Successful implementation will provide synergy between DoD and suppliers.

The Case Against...

- Perceived lack of process control.
- No data base for tracking contractor performance.
- May lead to excessive rework.
- Potential loss of ability to manage configuration control.
- Potential loss of control of design changes.
- Poor implementation leads to wasted resources and poor results.
- Some risk in taking cuts before proofing system.
- May be prone to manipulation of process data.
- Lack of trust will continue and become a bigger barrier.
- Program offices may opt not to cooperate.
- Poor quality products may result in disastrous airplane crashes.

Final Draft

- May be a propensity for contractors to cut corners.
- May see an increase or high incident of critical failures in products.
- Implementation of streamlined infrastructure and processes may cause individuals to lose their jobs.
- May end up with having less people to do rework.
- Potential for contractors to not follow validation and verification procedures.

III. PROBLEM ANALYSIS

The RIT took a “step back” to examine the case for taking action—i.e., why invest in an improved quality assurance process model and what gains might be expected by eliminating current barriers that inhibit a more efficient and cost effective approach to jointly managing the quality assurance process.

To successfully generate a current baseline of performance from which deductions about the current quality assurance process model could be made, joint stakeholder teams were established to define the “as is” process quality map of each of the below represented Honeywell facilities. (See Appendix C for greater detail.)

- Albuquerque/Teterboro
- South Bend
- Urbana
- Tempe

From this detailed facility analysis a common generic quality process map representative of all facilities was developed (see Figure 1).

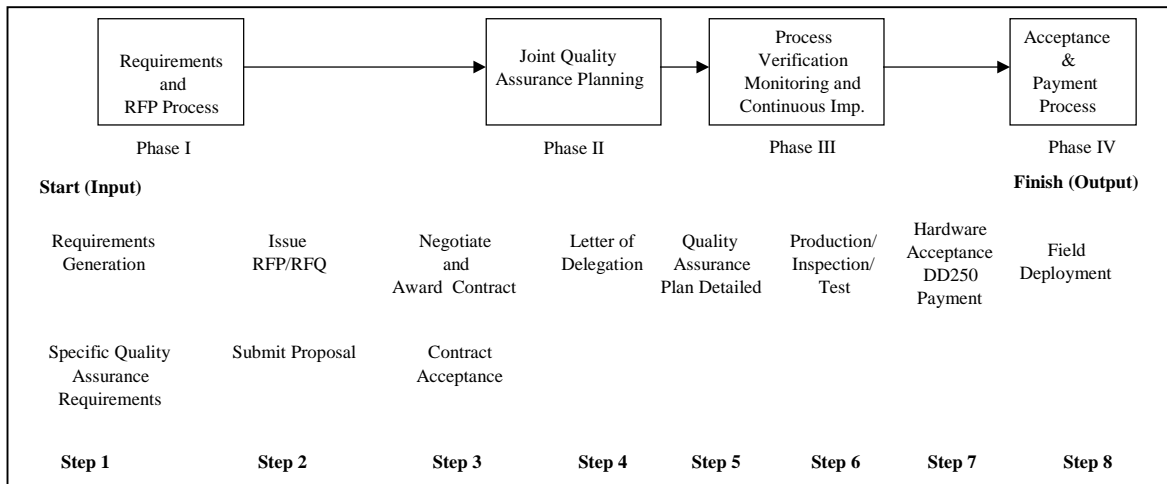


Figure 1. Common Quality Process Map

Final Draft

Each facility team then identified and analyzed the key barriers and disconnects in the above quality and payment processes. Table 1 defines the major disconnects and proposes potential solutions for each of the eight steps of the generic quality/payment process. Detailed process maps with disconnect analyses for Albuquerque/Teterboro, South Bend, Urbana and Tempe facilities preceded Table 1 development and are provided for reference in Appendix C.

Table 1. Common Process Gap Analysis

Requirements and RFP Process; Cross Functional Requirements Team					
▪ DCMC and suppliers are partners in requirement					
Process Step	Describe Disconnect	Reason for Disconnect	Potential Solution	Current Cycle time	Estimated Savings
1	Lack of supplier/DCMC involvement in coordinating quality requirements	<ul style="list-style-type: none"> ▪ Busy ▪ Overwork ▪ No incentive ▪ Time 	<ul style="list-style-type: none"> ▪ Cross-functional Team (IPT) ▪ Liaison 		20% savings
1	Failure to use past performance to determine QA requirements	<ul style="list-style-type: none"> ▪ Data not requested ▪ No centralized data system ▪ No feedback mechanism 	<ul style="list-style-type: none"> ▪ Centralize data collection and feedback system ▪ Use system 		40% savings
1	Low involvement of supplier/DCMC in RFQ/RFP Phase	<ul style="list-style-type: none"> ▪ Lack of time ▪ Not competitive 	<ul style="list-style-type: none"> ▪ Industry Conference ▪ Provide draft RFP to Honeywell ▪ Standardize RFP 		10% savings
2	Incorrect and over specification for products	<ul style="list-style-type: none"> ▪ Risk mitigation ▪ Lack of time ▪ Don't want to take the risk 	<ul style="list-style-type: none"> ▪ Implement acquisition reform ▪ Allow alliance to help as a resource to the PM 		70% savings
2	Inadequate review of resources to support contract	<ul style="list-style-type: none"> ▪ Misinterpret requirements ▪ Lack of time ▪ Lack of flow down ▪ Lack of communication 	<ul style="list-style-type: none"> ▪ IPT Approach ▪ Post award conference involving all parties 		10% savings
2	Failure to perform or heed pre-award survey	<ul style="list-style-type: none"> ▪ PCO has enough information already ▪ Inadequate contractor history ▪ Lack of time 	<ul style="list-style-type: none"> ▪ Maximize sharing of history between all parties 		0% savings

Final Draft

Table 1. continued

Process Step	Describe Disconnect	Reason for Disconnect	Potential Solution	Current Cycle time	Estimated Savings
3	Quality requirements are not a part of negotiation	<ul style="list-style-type: none"> Marketing people don't have knowledge of quality Honeywell Quality & DCMC quality not involved in negotiation 	<ul style="list-style-type: none"> Include all quality functions in negotiation 		30% savings
Joint Common Quality Assurance Planning					
Process Step	Describe Disconnect	Reason for Disconnect	Potential Solution	Current Cycle time	Estimated Savings
4	Inadequate for questionable flow downs	<ul style="list-style-type: none"> Lack of up front involvement, communication, time, education 	<ul style="list-style-type: none"> Better Post-award conferences, IPTs Group product by commodity Training 		
4	Hard to challenge requirements from PMO and internal DCMC	<ul style="list-style-type: none"> Attitude Availability of time Education 	<ul style="list-style-type: none"> IPT/Pre-Award participation 		
4	Poor communication between PMO/DCMC supplier	<ul style="list-style-type: none"> Attitude Availability of time Education 	<ul style="list-style-type: none"> IPT/Pre-Award participation 		
4	Non-specific or vague quality requirements	<ul style="list-style-type: none"> Lack of up front involvement, communication, time, education 	<ul style="list-style-type: none"> IPT has to be done together at RFQ review 		
5	DCMC Risk Handling plan and contractor quality plan are disconnected	<ul style="list-style-type: none"> Different ways of approaching requirements 	<ul style="list-style-type: none"> Joint planning 		
5	Interpretation of data is not consistent between DCMC and PMO	<ul style="list-style-type: none"> Communication education 	<ul style="list-style-type: none"> IPT has to be done together at RFQ review 		
5	Not synching DCMC quality assurance plan with contractor quality control plan	<ul style="list-style-type: none"> Different ways of approaching requirements 	<ul style="list-style-type: none"> Joint Planning Follow-on team to sync up current plans across SBUs/DCMC offices (w/customers) 		

Final Draft

Table 1. continued

Process Verification Monitoring and Continuous Improvement: Develop common philosophy & cross functional teaming, common data, confidence in process and process quality management					
Process Step	Describe Disconnect	Reason for Disconnect	Potential Solution	Current Cycle time	Estimated Savings
6	DCMC& Honeywell performing redundant inspections	<ul style="list-style-type: none"> No combined planning re: items which are redundant 	<ul style="list-style-type: none"> Separate Q control from assurance by synching/coordinating DCMC and contractor plans early in process 		
6	Business Case not aligned between DCMC and Contractor	<ul style="list-style-type: none"> Not shipping linearly Vendor parts not received on time DCMC does not have sensitivity to contractor's financial goals 	<ul style="list-style-type: none"> Better communication of requirements 		
6	Lack of communication coordination with contract distribution between PMO/DCMC and contractor	<ul style="list-style-type: none"> DCMC firewall, in some cases, prevents access to electronics copy of contracts 	<ul style="list-style-type: none"> Short term, contractor provides hard copy of contract of DCMC Long term, DCMC to resolve firewall issue 		
6	DCMC QA personnel have different areas of interest	<ul style="list-style-type: none"> No pre-determined list of what's required to look at Different DCMC folks have varying requirements for acceptance 	<ul style="list-style-type: none"> Common understanding and agreed to areas of interest 		
6	DCMC inspection points may not be in the most efficient production points	<ul style="list-style-type: none"> No combined planning and agreed to measurement techniques 	<ul style="list-style-type: none"> Establish common approach to process health measures 		

Final Draft

Table 1. continued

Acceptance and Payment Process <ul style="list-style-type: none"> ▪ Certifying Officer legislation creates high risk for sign-off; separate quality assurance from payment process; payoff of “commercial invoices”, Solution, Payment or origin even if CoC/Com'l Invoice/Fast Pay or anything else 					
Process Step	Describe Disconnect	Reason for Disconnect	Potential Solution	Current Cycle time	Estimated Savings
6	Inability to involve Certificate of Conformance due to contractual language	<ul style="list-style-type: none"> ▪ Certificate of Conformance not considered in process step #1 	<ul style="list-style-type: none"> ▪ Program managers are to consider the use of Certificate of Conformance in requirements generation phase 		
7	Too much heat on DCMC for DD250 due to payment process	<ul style="list-style-type: none"> ▪ Poor planning ▪ No planning ▪ Contractor wants GSI to speed up payment 	<ul style="list-style-type: none"> ▪ Proper prior planning ▪ Certificate of Conformance (Global)-DD250 ▪ ARP (No clause)-DD250 ▪ Fast Pay Low \$ Impact Card-DD250 or other ▪ Commercial invoice 	2-7 days 2-7 days N/A (up to \$25K)	
7	DCMC signs 100% of all DD250's	<ul style="list-style-type: none"> ▪ No plan in place to assure quality by process monitoring 	<ul style="list-style-type: none"> ▪ Agree to DoD/Contractor Six Sigma plan to assure quality ARP and Certification of Conformance 		
8	Customers do not always follow PQDR process	<ul style="list-style-type: none"> ▪ Training ▪ Time to do paperwork ▪ Complexity of forms 	<ul style="list-style-type: none"> ▪ Accept company customer satisfaction system 		
8	Return process not always throughout	<ul style="list-style-type: none"> ▪ Knowledge of equip ▪ Don't know who to send it to 			
8	PQDRs do not always get fed back to PMO for incorporation into past performance				
8	Lack of a common DoD database for PQDRs				
8	Most field defects are not reported				

Final Draft

Table 1. continued

Process Step	Describe Disconnect	Reason for Disconnect	Potential Solution	Current Cycle time	Estimated Savings
8	Could not duplicate customer errors on PDQR				

IV. COMMERCIAL BENCHMARKING BEST PRACTICE REVIEW

The RIT engaged in a knowledge sharing exercise to identify “best practices” in the commercial environment. The RIT was briefed on the six-sigma quality approval process. (See Appendix D.)

The RIT moved from articulating the merits of the six-sigma process to designing a quality process roadmap characterized by the integration of a new government/relationship focused on improving the quality assurance process and reducing DoD engagement.

Note: The Six Sigma type charts in Appendix D are for illustrative purposes only, are very brief, and are not meant to fully describe a statistically sound Six Sigma methodology.

V. VISION FOR CHANGE

After careful examination of currently employed quality environments in operation for four target facilities, the RIT took several passes at developing a consensus model process for the future implementation. The resulting process was formulated to move from today's process reality to an improved model for the future. The revised process model provides a common set of insights, or beliefs, and recommends actions for improvement. The model was forged from the RIT's dialogue, debate and shared knowledge and is designed to achieve the overall goal of the DoD/Honeywell QA relationship.

The Overall Goal of the DoD/Honeywell QA Relationship is:

- To get stakeholders to agree on a process for:
 - Decreased engagement in proportion to the quality requirements of the product
 - Common sharing and analysis of data
 - Enhancing customer confidence.
- To achieve product acceptance based on Joint Process Quality Metric (PQM) activities.
- To encourage reallocation of resources.
- To raise customers confidence that products conform to performance and contractual requirements.
- To better distribute risk; reduce engagement; and increase process validation (a joint quality program).
- To achieve maximum overall quality at least overall cost to all.
- To remove redundancy, focus on process improvements, and partner to improve mutual goals.
- To talk the talk and walk the walk.
- To remove unnecessary source inspection and/or engagement while maintaining and/or improving quality.
- To use teaming to achieve concurrence on process capability and process monitoring points.

FINAL DRAFT

- To achieve a decrease in engagement proportional to process improvements and risk of product quality.
- To pursue available alternatives (i.e., ARP and COC), to reduce the burden to the Government and contractor, when the contractor demonstrates a quality program that continuously produces conforming products.
- To ensure products are 100% acceptable in terms of quality.
- To implement a common data driven process for quality management systems.
- To gain product acceptance based on joint PQM activities.
- To move to maximize reliance on process oriented analysis.
- To team on a joint six-sigma journey.
- To create better reallocation of resources.
- To influence a reduction in contractor and DoD costs.
- To have no negative impact on contractor cash flow.
- To create a better understanding, development and execution of risk management plans.
- To improve product quality.
- To reduce DCMC/DLA QA involvement.
- To reach a consensus on a plan for QA process improvement implementation.
- To develop, implement, and use mutually acceptable metrics systems.
- To implement actions that create high confidence levels in product quality in order to reduce inspection requirements.
- To better share data.

These goals will be used to form the basis for redefining the current quality assurance process model. To make the transition from current quality assurance processes to new and improved processes will require a cultural change. This cultural change must be influenced and supported from both government and contractor top leadership. To

FINAL DRAFT

achieve the goals of the Honeywell/DLA relationship, there must be a shift in thinking and conducting business as depicted in Table 2.

Table 2. Transitioning From The Old Way Of Doing Business To The New Way Of Doing Business Will Require The Following Shifts

From:	To:
Product inspection	Improved process capabilities Periodic surveys Improved process knowledge and control
Adversarial relationships	Teaming and partnering to achieve joint goals
Doing what's always been done	Finding new ways of doing things
Risk Avoidance	Risk Management
In plant focus	Out plant focus
Redundancy	Congruity
Attitudes of suspicion and mistrust	Attitudes of trust
Reacting to surprises	Managing surprises
Segregated processes	Integrated processes
Independent operations	Operational interdependence
Product inspection	Systemic process inspection
Multi-approach inspections	Six-sigma processes
Tired and stagnant processes	Innovative state-of-the-art six-sigma processes
PMs imposing GSI inefficiencies	Allowing CoC innovative efficiencies
Contractors meeting minimum requirements - PMs imposing GSI	To proactively improve products/processes, reliability, etc.
Disjointed government QA requirements and contractors meeting minimal requirements	Cooperative quality process implementation strategy
Independent contractor and DCMC QA planning	Joint planning/cooperative QA strategic approach
Redundant data systems/analysis	Contractor /government integrated data systems with joint analysis & planning
Independent Training	Shared Training

Quality Assurance Innovation

There was general consensus that there were efficiencies that could be gained with the mutual reengineering of the quality assurance process steps identified earlier. The government has accepted the challenge to partner with industry to establish process models for assuring the quality of the products it buys. To facilitate this effort the

FINAL DRAFT

government will work with industry to improve and streamline process steps, reduce barriers, improve tools, delegate and power down the authority and responsibility for assessing and measuring quality, reduce unnecessary government overhead, and to measure and improve performance. Key to this campaign for improved quality, reduced costs, and greater efficiency is the willingness of all stakeholders to work in a partnership characterized by increased trust, mutual goals, and a sharing of risk.

Based on the RIT's earlier efforts in defining the current quality assurance process models and establishing mutual expectations in terms of goals and desired outcomes, the RIT formulated a revised process model for each of the phases as shown in Figure 2. For each phase in the process, the RIT identified detailed process model actions, stakeholders, responsibilities and descriptions of the tools and paths to completion. The process models for each phase are described in detail in the pages that follow.

The implementation of this process model is contingent upon a three-way partnership between, DCMC, Honeywell, and the Program Management Organization. This partnership will carry out joint quality assurance planning utilizing mutually agreed to quality assurance management processes and supporting performance metrics. Process improvement implementation plans will be based on commercial best practices.

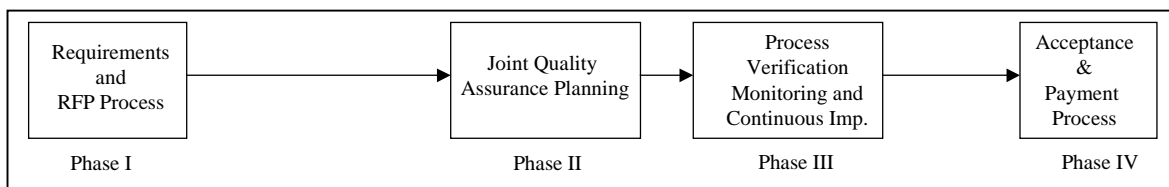


Figure 2. Revised Common Quality Process Map

FINAL DRAFT

Phase I - Requirements and Request for Proposal Process

DCMC and Suppliers are partners in requirements definition

Stakeholder Roles ↓	← Process Steps →			
PM PMO/PCO	(1) Draft Solicitation		(3) Finalize solicitation with comments from alliance incorporated if accepted	
DCMC		(2) Alliance recommends adjustments to the solicitation (i.e. comments, legal roadblocks, how do ICPs follow process)		
Honeywell QA				Issue contract Accept contract
Government ICP (Inventory Control Point)				
User				

Sub Process: Draft Solicitation
Activity #: (1)
Description: Follow DoD 5000.1 Draft solicitation “PMO drafts solicitation IAW, Program Management Requirements”
Steps to Completion: Develop Request for Information (RFI) Send to Alliance (contractor & DCMC); PM Sends to DCMC; DCMC sends to contractor Incorporate Feedback
Supporting Tools/Documents DoD 5000.1 Series Directives (Follow) E-mail Website Fax FAR/DFARS

Sub Process: Alliance recommends adjustments to solicitations
Activity #: (2)
Description: Alliance reviews and makes recommendations for changes
Steps to Completion: Research product and process history Provide data to PM/PCO Provide recommendation from Alliance
Supporting Tools/Documents SPC, CP, CPK, product returns, vendor database Email, Websites, Fax RFI

FINAL DRAFT

--

Sub Process: Finalize Solicitation
Activity #: (3)
Description: Analyze recommendations from Alliance and change solicitation if accepted and appropriate
Steps to Completion: PM reviews and dispositions recommendations Changes solicitations as applicable Issues Solicitations
Supporting Tools/Documents: Original RFI Alliance recommendations Supporting data FAR/DFARs Engineering data

FINAL DRAFT

Phase II - Joint Quality Assurance Planning

Stakeholder Roles ↓	← Process Steps →				
PMO	Market research includes QA IPT RFP				
DCMC		Contract (requirements jointly reviewed) (1)	Develop joint quality plan (2) --based on risk analysis Provide joint quality plan to PMO (CDRL)	Develop joint metrics Shared access to data base Joint analysis (3) Field data inputs to common database from users	Update QA plan Δ manufacturing processes VECP Number of inspections (4)
Honeywell					
Users					

Sub Process: Joint Quality Assurance Planning
Activity #: 1 Conduct joint contract requirements review
Description: Upon receipt of contract, DCMC & contractor arrange meeting to review/discuss contract QA requirements, raise issues, items which may need to be challenged, etc.
Steps to Completion: Receive contract Distribute contract Identify QA related requirements Schedule meeting
Supporting Tools/Documents: Contract IPT Charter

Sub Process: Joint Quality Assurance Planning
Activity #: 2 Develop Joint Quality Plan
Description: Develop joint Process Quality Management Plan based on risk assessment analysis.
Steps to Completion: Identify risk factors/key characteristics (jointly developed from DCMC QA risk matrix) from PQM System Identify critical/key processes Identify needed technology Perform risk analysis using Six Sigma methodology Write joint QA plan
Supporting Tools/Documents: Risk analysis from PQM System Contractor Quality Plan

FINAL DRAFT

Production planning data User Data (PQDRs) Internal contractor data

Sub Process: Joint Quality Assurance Planning
Activity #: 3
Description: Develop Joint Metrics
Steps to Completion: Review internal contractor data and PQDRs Define common data Assure mutual access to data Agreement on tools to be used (Pareto metrics, trending, Six Sigma, etc.) Perform joint analysis Agreement to points of action/process
Supporting Tools/Documents: Internal contractor data (discrepancies/escapes database) DCMC data User data → #5 (step) PMO data

Sub Process: Joint Quality Assurance Planning
Activity #: 4
Description: Update QA Plan (as needed)
Steps to Completion: Evaluate QA plan based on analysis results/audits Update plan as indicated by review Implement agreed upon QA plan
Supporting Tools/Documents Audits Internal contractor data Yield data QA plan metrics User data PMO data PQM data

FINAL DRAFT

Phase III - Process Verification Monitoring & Continuous Improvement

Stakeholder Roles ↓	← Process Roles →			
PMO	Market research includes QA IPT RFP			
DCMC Honeywell	Contractor, PMO, DCMC (& PCO) agree on DCMC's oversight process (1a)	Process validation: Mapping FEMA Measurement system and evaluation Sampling plans (1b)	DCMC & contractor agree on how process monitoring will occur. This is facility or process dependent, not product specific (2)	DCMC & contractor concur on process measurement metrics/control limits for those metrics Consider pre-determination of control actions & pre-agreement of control actions (This is a FM&A/CP) (3)
Subcontractor				
User				
DFAS				

Sub Process: Process Validation and PQM
Activity #: 1
<p>Description:</p> <p>DCMC & contractor coordinate & achieve concurrence on “what the PQM plan is” that requires DCMC oversight. DCMC informs customer’s program office.</p>
<p>Steps to Completion:</p> <p>Contractor proposes PQM control plan</p> <p>Contractor & DCMC meet, review PQM control plan & metrics. Both must approve the plan</p> <p>DMCM informs program office of what the PQM Plan is</p> <p>*PQM control plan includes:</p> <ul style="list-style-type: none"> ■ Metrics (i.e., performance targets/thresholds) ■ In-process requirements, control limits, & actions (i.e., continuous improvement) ■ Customer control limits and actions (i.e., corrective action)
<p>Supporting Tools/Documents:</p> <p>Six-sigma tools</p> <p>AAQG Draft Standard on process validation</p> <p>AAQG Draft Standard on FAI Plans</p> <p>DCMC “one book”</p>

FINAL DRAFT

Sub Process: Process Validation and PQM
Activity #: 2
Description: Determination of process maturity and process capability
Steps to Completion:
Supporting tools/documentation:

FINAL DRAFT

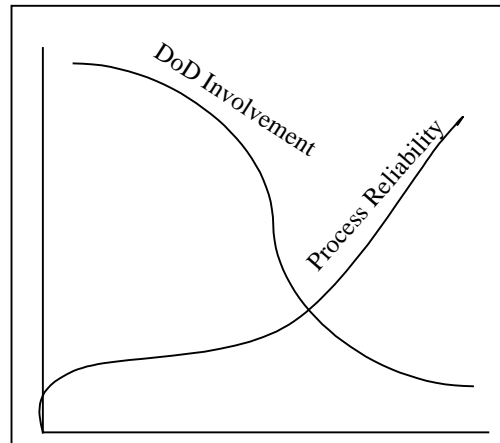
Phase IV - Acceptance & Payment Process

The Acceptance and Payment Processes were discussed. Appendix F provides the documentation of the participant's perception of the payment process. Although not complete in its description, as confusing as that may appear to the reader, the Team agreed the quality functions and payment processes are separate and distinct and only connect by the acceptance process. It was recommended further discussion of the separate nature of the processes payment process should be deferred to a future RIT and staffed with appropriate subject matter experts in acceptance and payment.

VI. SCORECARD

Guiding Principles

1. Decrease DoD involvement in supplier quality such that DoD surveillance will decrease as supplier quality increases.



2. Achieve a 3-way partnership between DCMC, PMO and Honeywell that encourages open communication and trust leading to continuous improvement.
3. Achieve quality assurance processes that encourage expedited delivery of quality products.

Measuring Performance

At the enterprise level, expected outcomes consist of improved performance in the following areas:

- Customer Satisfaction
- Improved responsiveness in terms of reduced process cycle-times
- Improved quality of products in terms of performance, reliability, durability, and conformance to customer expectations
- Reduction in costs of ownership/process
- Improved teaming (i.e. sharing of information, communication, shared risk, joint/combined activities, etc.)

Comparing performance against mutually developed performance expectations provide insight into adjustments that must be made in tweaking process steps. Figure 3 provides a potential matrix for measuring success in transitioning to a more efficient, cost-effective process of quality assurance.

FINAL DRAFT

<div style="display: flex; align-items: center;"> <div style="text-align: right; padding-right: 10px;">Stakeholder ↓</div> <div style="text-align: left; padding-left: 10px;">Metric →</div> </div>		Customer Satisfaction	Cycle-Time	Quality Process	Financial	Relationship
PMO (Any activity engaged in QA management and procurement of products and supplies)	Category	Reduction of PQDRs, RODs, field returns, defects in form, fit, function, and interface	Required delivery date	Process capability Meeting requirements	Reduce ownership costs	Insight into contractor data base
	Goal	Migrate to 0 defects	100% on time	100% conf $cp_k > 2$ 100% meeting requirements	Price	100% visibility of cost/performance/quality data
DCMC	Category	PQDR's Customer Feedback QALI Reduction (Less flow-down and mandatory)	On time delivery for both prime and subvendors	CAR's (internal & external) Risk assessment results Contractor corrective action system Receiving inspection Defects in production due to subs On-time sub delivery	Overall cost to manage contracts	Increase in joint activities (IPTs, training)
	Goal	95% Yield Inspection Data Release Quality 95% 95% 1 st test article	100% on time	Zero Defects No repeats (Preventive actions) Prime control of subs > 95% acceptance	Reduced Engagement	Improve relationship (teaming once a week)
Honeywell	Category	High Quality (acceptance rate/escape rate) On time delivery VOC score	Reduction in time required for DCMC to assure quality	High Quality (Acceptance rate/product availability)	Cash flow	VOC score
	Goal	On-time delivery =95% Customer = σ VOC = Green	> 50% reduction in cycle time at each facility	<div style="display: flex; align-items: center;"> <div style="margin-right: 10px;"> Product $\sigma =$ Process $\sigma =$ </div> <div style="font-size: 3em; margin-right: 10px;">}</div> <div> < 1000 ppm </div> </div>	No change to 1999 baseline	Green

Figure 3. Performance Measurement Scorecard

Elements of a Joint QA Plan

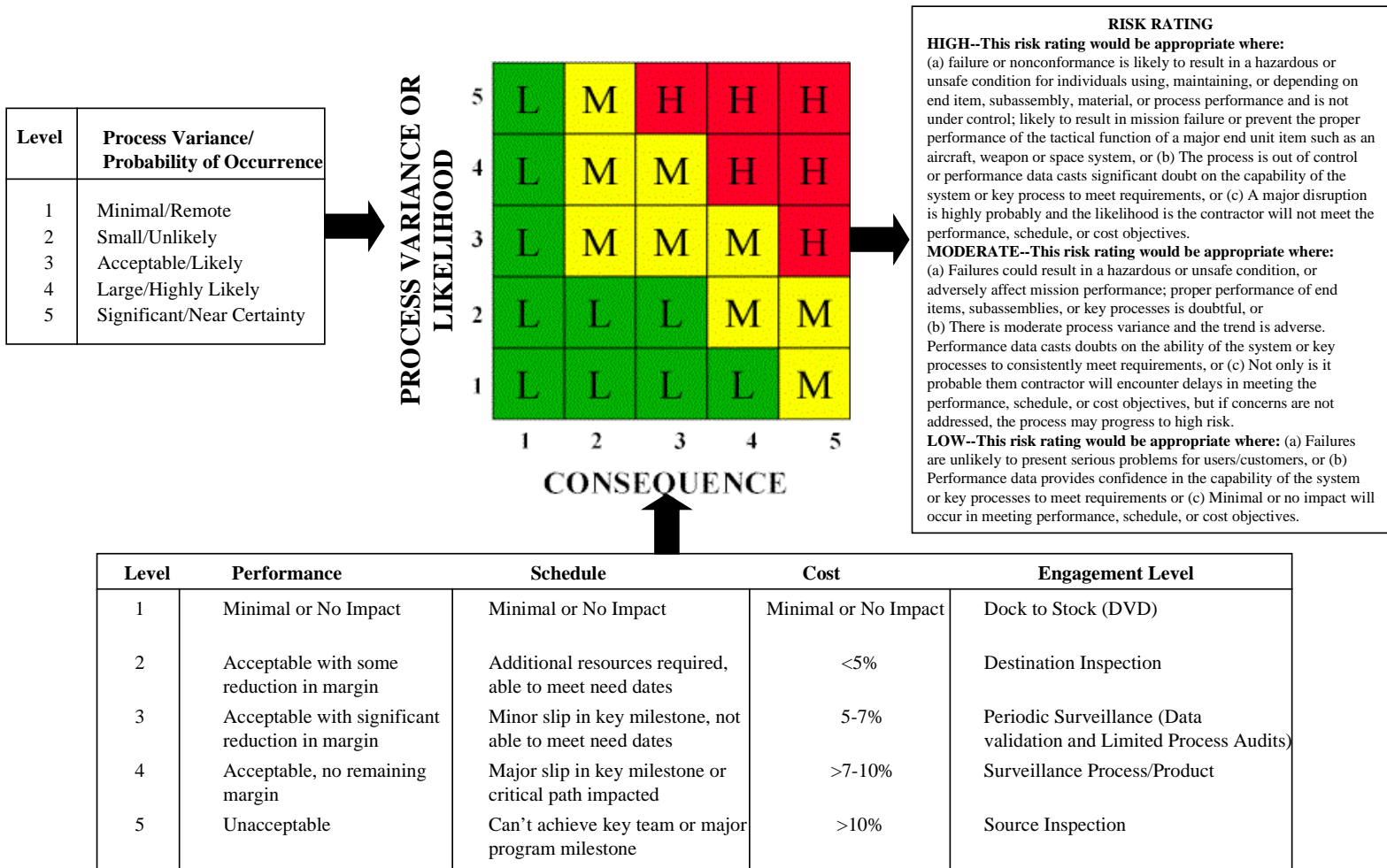
To ensure the mutual goals of the Strategic Alliance are met, the Alliance must develop and implement action plans in conjunction with the following elements:

- Product audits
- Process audits
- Appropriate data collection and analysis
- Addresses unique requirements and integrates into audit plans
- Assures implementation of unique requirements
- Corrective action processes
- Communication & data exchange process definition

Risk analysis and rating will fundamentally drive the surveillance and quality assurance plan. Mutually, the industry/government team should agree, based upon the commodity and consequence of failure, the appropriate level of surveillance. To assist teams in their evaluation, the RIT reviewed the standard Risk Analysis and Rating Process, shown in Figure 4. Using this as a guide the team developed the Surveillance Engagement Guide shown in 5. This guide should be used in the development of the surveillance plan for each delivered item. The highest score for either likelihood or consequence from Figure 4 is determined and then applied to Figure 5.

Risk Analysis & Rating Process

“Likelihood & Consequences”



Source: <http://www.dcmc.hq.dla.mil/onebook/3.0/3.1/con-like.gif>

Figure 4. Risk Analysis and Rating Process “Likelihood and Consequences”

Surveillance Engagement Guide

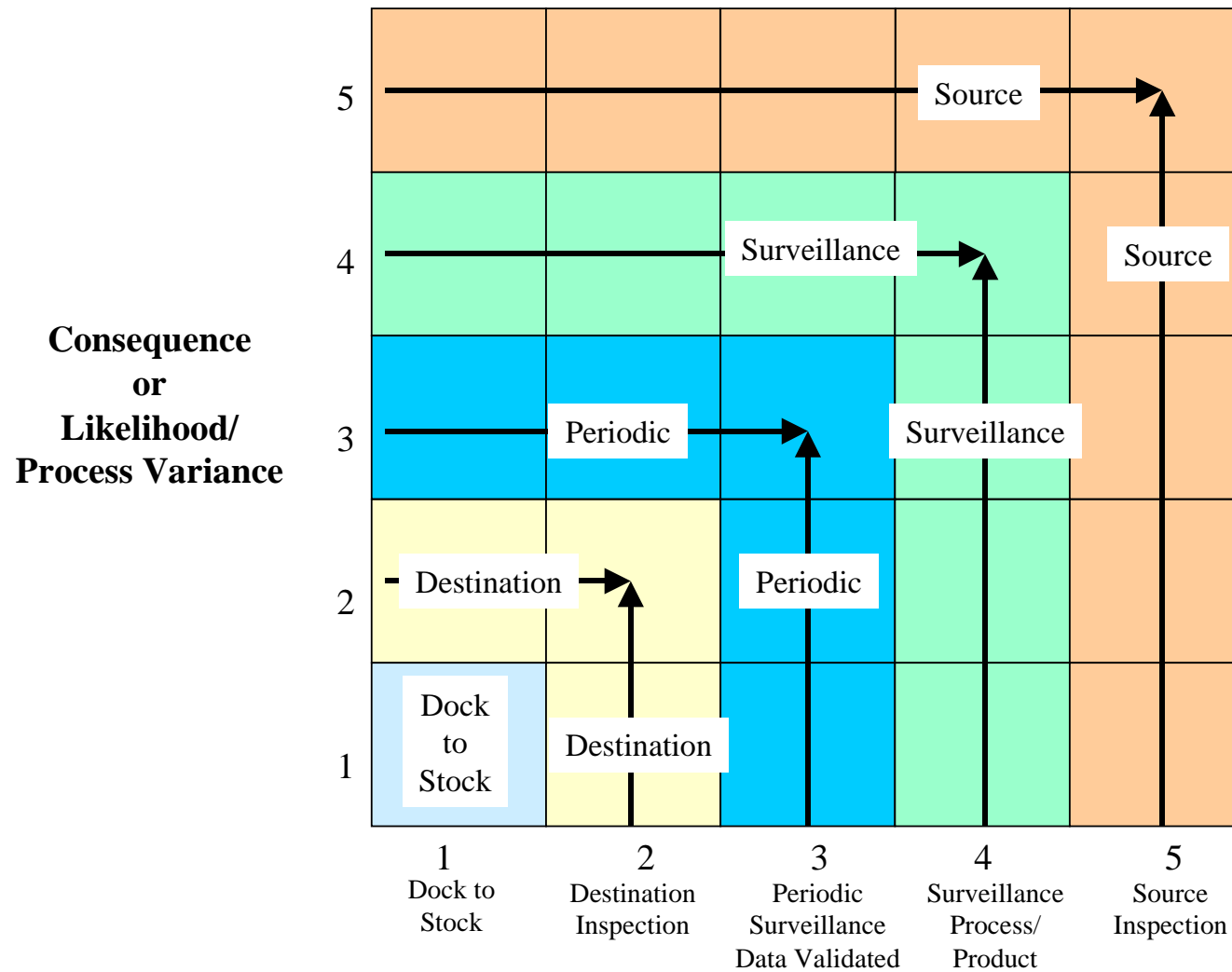


Figure 5. Surveillance Engagement Guide

FINAL DRAFT

DoD/Honeywell Surveillance Engagement Agreement Form

Honeywell Location: _____

Applicable Contract/Part Number(s): _____

Level	Process Variance/Probability of Occurrence	Performance	Goal	Schedule	Goal	Engagement Level
1	Minimal/Remote	Minimal or No Impact		Minimum or No Impact		Dock to Stock (DLD)
2	Small/Unlikely	Acceptable with some reduction in margin		Additional resources required to meet need dates		Destination Inspection
3	Acceptable/Likely	Acceptable with significant reduction in margin		Minor slip in key milestone, not able to meet need dates		Period Surveillance (Data Validation and Limited Process Audits)
4	Large/Highly Likely	Acceptable, no remaining margin		Major slip in key milestone or critical path impacted		Surveillance Process/Product
5	Significant/Near Certainty	Unacceptable		Can't achieve key team or major program milestone		Source Inspection

This agreement is entered into with the purpose of establishing a long term relationship based on a continuous improvement process leading toward world class benchmarks in quality, cost, and delivery and shall be characterized by mutually beneficial goals, trust and benefits. As a part of this agreement the above named Honeywell site agrees to work to goals jointly agreed with by the DCMC for the referenced part numbers or contracts. In the case where the Honeywell site is not meeting or trending toward the performance goals, a performance improvement plan is required and DCMC can elect to apply a more stringent Engagement Level. Trending is defined as a steady year after year or in some cases month after month improvement in performance by the Honeywell site which provides confidence that the site can and will meet the goal. In the event of a conflict between the terms and conditions of an DoD issued purchase order and those appearing in this Agreement, the terms and conditions of this Agreement shall prevail.

DCMC Approval _____ Honeywell Approval _____

FINAL DRAFT

VII. ACCELERATED PERFORMANCE IMPROVEMENT OPPORTUNITIES

The RIT brainstormed a comprehensive list of actions that would lead to QA process improvements and categorized the actions into the following five categories. In each category, actions were further identified as being able to be implemented within 60 days or later, as having a high or low impact, or as being within the RIT's control or requiring external support. These opportunities provide the foundation for both the short term and long term improvement areas.

- Training
- Site implementation
- Management and policy
- Knowledge management
- Metrics
- Leadership and management action

Action Opportunities - Training

Impact ↑ High	<ul style="list-style-type: none">• Establish method to share history data (PQDR, Reliant data)• Distribute QA/Ctr data to all parties• Establish corporate/customer repository within this alliance and sites• Training plan for six-sigma?<ul style="list-style-type: none">- Honeywell offers six-sigma training to Gov't QARs- Develop schedule for training for DCMC/PMO- Investigate alternative training sources	
	<ul style="list-style-type: none">• Use Earned Value Measurement System methodology as a guide for Joint Surveillance	
	Less than 60 Days	More than 60 Days

FINAL DRAFT

Action Opportunities - Site Implementation

<p>Impact</p> <p>↑</p> <p>High</p> <p>Low</p>	<ul style="list-style-type: none"> • The escalation process to resolve issues needs to be defined, easy to access and responsive • Engage the Primes where GSI is flowed down to our local DCMC 	<ul style="list-style-type: none"> • Outbrief confirmed to Quality Management • For each site get an IPT focused on this Plan • Devise methodology for generation of Joint QA Plans • Design, issue and monitor implementation plan
		<ul style="list-style-type: none"> • Bring subject up in meetings (non-related) to generate interest • Utilize outside facilitators in Gov't/contractor meetings at local sites.
	Completion in less than 60 days	Completion in more than 60 days

Action Opportunities - Knowledge Management

	Within Our Team	Outside Our Team
Requires Support	Push-Up: <ul style="list-style-type: none"> • Corporate Council preference & process training (PMO, contract Admin, contractor) • DCMC provides training to field activities not in attendance • Develop & provide a training package for both site DCMC, Prime Reps & Honeywell 	Push-Up/Pull-In: <ul style="list-style-type: none"> • OAD will facilitate Data integration within SSA RITs
Within Our Control	Act Now:	Pull-In:
	Clear Solution	Study Required

FINAL DRAFT

Action Opportunities - Management & Policy

<p>Impact</p> <p>↑</p> <p>High</p>	<ul style="list-style-type: none"> • Both Honeywell and DCMC management have to drive site level teams to implement GSI reduction Programs • Issue Guidance to all players (id. players) • Establish joint activity schedules • Ensure that all applicable laws, rules and regulations allow implementation. Any changes required for compliance should be developed. • DCMC issues guidance to the field • Implementing procedures developed at corporate, site and program levels • Honeywell announces initiative within company--issues internal guidance • Top Down: <ul style="list-style-type: none"> - Alliance Plan - Corporate Agreement - Disseminate for facility implementation 	<ul style="list-style-type: none"> • Web site for anyone interested to find out more about initiative • Flow down of new directive to heighten awareness of CoC/ARP Programs • Alliance to get service reps data • Assure awareness of guidelines that already exists • DCMC consistent implementation • Explore CoC + ARP procedures and train (communicate) to DMCM at sites • Define criteria for moving to ARP. • Criteria for Alternative Release Procedure (ARP) needs to be more specifically defined, i.e., % yield rate needed to qualify for ARP
<p>Low</p>		<ul style="list-style-type: none"> • Keep all sites informed of the alliance idea/conceptions • Establish management councils with personnel that own the change process (contractors/DCMC/Services) • Use the SPI management council for communication and guidance at the sites <ul style="list-style-type: none"> - Management councils define process metrics to determine performance - Management councils agree to adjust resources commensurate to process/schedule/C/A/Performance • No hidden agenda outside RIT agreement • Open communication • Access to agree process data

Completion in 60 Days

FINAL DRAFT

Action Opportunities - Management & Policy (continued)

	Within Our Team	Outside Our Team
Requires Support	Push-Up:	Push-Up/Pull-In: <ul style="list-style-type: none"> • Commitment from All PMO's, Services, DLA and DoD • PM Buy-in (not necessary to process but in interest of information sharing)
Within Our Control	Act Now: <ul style="list-style-type: none"> • Include all sites in next meeting 	Pull-In:
	Clear Solution	Study Required

Action Opportunities - Metrics

	Within Our Team	Outside Our Team
Requires Support	Push-Up:	Push-Up/Pull-In: <ul style="list-style-type: none"> • Consolidate stakeholder metrics to joint metrics • Resolve GSI issue • Develop a roadmap chart for maturity path through the different levels of oversight with general requirements for each level
Within Our Control	Act Now: <ul style="list-style-type: none"> • Perform existing metrics collection and review to see where things stand 	Pull-In <ul style="list-style-type: none"> • Fold this program into site 6 Sigma plan measures and metrics • Develop product specific metrics for meeting transitions to different levels of oversight • Develop facility maturity matrix to determine surveillance level • Metrics for verification developed to assure processes are working appropriately • Ensure that controls are in place to protect the interest of the gov't (DoD). Otherwise, IG will non-concur w/implementation
	Clear Solution	Study Required

FINAL DRAFT

VII. 60 DAY ACTION PLANS

The RIT reviewed its completed work with the Senior Sponsor Steering Group and collaborated on the following 60-day action plans to rollout the quality assurance improvement roadmap.

Note: This 60-day action plan applies only to the South Bend facility, which will provide their products as an example for site visits to other facilities.

Training – Six-Sigma (Tom Webb)

What Needs to be done	Who Can do it	When Will it be done
Identify current six-sigma training requirements; schedule at each site	Honeywell/Commercial Vendor	2/15/00
Ensure no government regulations prohibit participation Provide legal guidance	DCMC	2/15/00
Identify who for DCMC and customers will attend	DCMC	2/15/00
Schedule names to classes and begin training	Honeywell/DCMC Tom Webb/Doug Rodick	2/28/00

Site Implementation – DCMC/Honeywell Joint Teams

What Needs to be done	Who Can do it	When Will it be done
Establish plan and structure to support implementation - Identify local site representatives for both Honeywell and DCMC - Define site visit plan	Honeywell and DCMC management (Tom Webb)	1/3/00
Initiate joint meeting between Honeywell QA and DCMC to finalize Joint Implementation Plan	Joint Honeywell/DCMC Team	1/10/00
Joint Implementation of Teams and Plans at facility to: - Identify goals - Initiate implementation plan - Initiate metrics plan - Work issues - Identify Cage Code of all participating sites	Joint Honeywell/DCMC Team Barry Cohen	1/18/00
Write joint DCMC/Honeywell QA Plan	Joint Honeywell/DCMC Team	2/15/00
Joint implementation of Honeywell/DCMC QA Plan	Joint Honeywell/DCMC Team	3/15/0000

FINAL DRAFT

What Needs to be done	Who Can do it	When Will it be done
Prepare materials for Quality Alliance roadshow: <ul style="list-style-type: none"> - Education and training - Investigation and research - Implementation - Joint database 	Joint Honeywell/DCMC Team	2/16/00 Planning 2/29/00 Completion
Export Plan <ul style="list-style-type: none"> - Site Visits 	Joint Honeywell/DCMC Team Joint Implementation Team	3/30/00 March thru December

Knowledge Management

What Needs to be done	Who Can do it	When Will it be done
Form teams to define what data all stakeholders need access to	Joint Honeywell/DCMC Team	1/31/00
Identify methodology to collect data	Joint Honeywell/DCMC Team	2/15/00
Review legal/proprietary data considerations of sharing data	Joint Honeywell/DCMC Team	2/28/00
Develop method (web-based?) to share data	Joint Honeywell/DCMC Team or 3 rd party consultant	3/30/00
Train users on system	Joint Honeywell/DCMC Team or 3 rd party consultant	4/10/00

Management and Policy

What Needs to be done	Who Can do it	When Will it be done
Establish linked SSA Websites to communicate change	OSD/DCMC HQ	3/15/00
Guidance/guidelines issued to DCMC offices <ul style="list-style-type: none"> - Define Program Office outreach plan - Define Escalation Process between steering group and corporate council 	Honeywell/DCMC HQ DCMC	1/31/00 1/31/00
Resource/train to completion at sites	Joint Honeywell/DCMC Team	2/28/00
Drive completion of site plans	Joint Honeywell/DCMC Team	3/31/00
Integrate SSA RIT activities	OSD	3/31/00
Validation of QA RIT with SSA integration	JCC/DCMC HQ	3/31/00
Schedule DD250 payment RIT for SSA	OSD	After 2/00
Follow-up on site plan progress	JCC/DCMC HQ	Bi-monthly
Define ICP software impacts to adopt revised QA methods	NAVICP	2/15/00

FINAL DRAFT

Metrics

What Needs to be done	Who Can do it	When Will it be done
Perform (existing) metrics collection and review to see where we stand	Allied Sites DCMC PMO/ICPs	1/1/00 — 2/29/00
Establish Joint Site Teams	Honeywell/DCMC Corporate Board	2/15/00
Task meeting and data collection	Honeywell/DCMC Corporate Board	1/18/00
Alliance meetings by site	Joint Site Teams	2/14/00
Analyze and consolidate where possible	Joint Site Teams	2/29/00
Report to corporate board on regular quarterly schedule	Joint Site Teams	Quarterly
Establish JCC Review Process	JCC	As scheduled 3/7/00 7/25/00 10/25/00

FINAL DRAFT

VIII. HONEYWELL SITES IMPLEMENTATION PLAN (DRAFT)

Impartial facilitators to be supported by The Change Management Center.

Using the South Bend implementation (due end of February) as an example, and the participants from the December meeting:

- Establish 1 or 2 teams per district
 - Team members: 1 DCMD, 1 DCMC HQ, 1 Honeywell, 1 facilitator, 1 or 2 prevalent customers (Army, Navy, AF, DLA) for specific facility - at the option of the respective POCs.
 - Length of visit: 1 to 2 days (try to do 2-3 sites in a week; to optimize travel, if the facilities are relatively close 4-6 sites in a 2 weeks period)
 - Local DCMC/Honeywell leads determine respective on-site teams (no more than 20)
- Identify members of advisory teams by mid February.
- Conduct Conference call to scope out process for site visits
- Prepare tentative schedule by end of February.
- Meeting/training of the advisory teams in early March.
- Start visiting facilities in March and early April. All Honeywell facilities will be visited on a priority basis, as agreed to by DCMC and Honeywell.
- Priority 1 and 2 facilities should be visited by December 2000; Priority 3 will be visited in the following year.

Agenda items for facility visits:

- Brief intro by DCMC & Honeywell on scope and importance of effort.
- Overview of the process (as the December meeting)
- Presentation of the South Bend effort (as an example)
- Identify DCMC and Honeywell local implementation team.
- Workshop session to begin development of a joint overall implementation plan for that facility (to include reporting to the Management Council on progress).
- Start identifying key areas of concern, goals, metrics, and thresholds for reduced DCMC surveillance.

FINAL DRAFT

- Workshop session on integration of the DCMC Risk Handling Plan with the Honeywell quality assurance plan.
- Establish teams to continue specific tasks to support the implementation plan.
- Establish reporting and periodic feedback using existing Management Council Infrastructure.

Preliminary List of Facilities:

3 facilities in the International District located in 2 countries.

8 facilities in the East District located in 14 states.

17 facilities in the West District located in 13 states.

Initial Site Deployment Schedule

CAO Name	Contractor Name	City	State	Planned Visit
DCMC CLEARWATER	HONEYWELL INC	CLEARWATER	FL	Apr 00
DCMC PHOENIX	HONEYWELL INC	ALBUQUERQUE	NM	Apr 00
DCMC DALLAS	LORI	TULSA	OK	Apr 00

List of Honeywell Facilities:
(Highlights indicates agreed priority 1)

CAO Name	Contractor Name	City	State
DCMC HARTFORD	GRIMES AEROSPACE CO	PLYMOUTH	CT
DCMC CLEARWATER	HONEYWELL INC	CLEARWATER	FL
DCMC INDIANAPOLIS-South Bend	ALLIEDSIGNAL INC	SOUTH BEND	IN
DCMC ATLANTA	ALLIEDSIGNAL - Engines	GREER	SC
DCMC ATLANTA	ALLIEDSIGNAL - Overhaul	GREER	SC
DCMC ATLANTA	ALLIEDSIGNAL INC	ROCKY MOUNT	SC
DCMC SPRINGFIELD-ALLIED SIGN	ALLIEDSIGNAL INC	TETERBORO	NJ
DCMC DAYTON	GRIMES AEROSPACE CO	URBANA	OH
DCMC AMERICAS	ALLIEDSIGNAL AEROSPACE CAN	MISSISSAUGA	CAN
DCMC AMERICAS	ALLIEDSIGNAL AEROSPATIALE	MONTREAL QUE	CAN
DCMC SOUTHERN EUROPE	ALLIEDSIGNAL AEROSPACE GMBH	RAUNHEIM	GER
DCMC PHOENIX	ALLIEDSIGNAL INC	CHANDLER	AZ
DCMC PHOENIX	HONEYWELL INC	GLENDALE	AZ
DCMC PHOENIX	HONEYWELL INC	PHOENIX	AZ
DCMC PHOENIX	ALLIEDSIGNAL INC	PHOENIX	AZ
DCMC PHOENIX	ALLIEDSIGNAL INC	TEMPE	AZ
DCMC PHOENIX	ALLIEDSIGNAL INC	TUCSON	AZ

FINAL DRAFT

DCMC VAN NUYS	ALLIEDSIGNAL INC	BURBANK	CA
DCMC VAN NUYS	ALLIEDSIGNAL INC	SUN VALLEY	CA
DCMC SANTA ANA	ALLIEDSIGNAL INC	TORRANCE	CA
DCMC ST LOUIS	ALLIEDSIGNAL INC	OLATHE	KS
DCMC TWIN CITIES	HONEYWELL INC/MILITARY	GOLDEN VALLEY	MN
DCMC TWIN CITIES	HONEYWELL INC	MINNEAPOLIS	MN
DCMC ST LOUIS	ALLIEDSIGNAL - ALS	KANSAS CITY	MO
DCMC PHOENIX	HONEYWELL INC	ALBUQUERQUE	NM
DCMC DALLAS	ALLIEDSIGNAL - LORI	TULSA	OK
DCMC SEATTLE	ALLIEDSIGNAL AVIONICS INC	REDMOND	WA

Traveling Team Membership:

Three to five team members will be selected from the following list to support site visits

DCMC HQ:

Pete Angiola, (703) 767-7504, peter_angiola@hq.dla.mil

DCMC/DFAS:

John Heston, (614) 693-4969

DCMDW

Mr. Randy Sawlsville, (818) 267-2003; e-mail: Rsawlsville@dcmdw.dla.mil

Jimm Casey, DCMC Phoenix Scottsdale, (480) 592-1012

Gene Chamblin, DCMC Phoenix, (480) 592 5669

Major Ellazar, USAF, DCMC Santa Ana, (310) 512-5889

Steve Jacobs, DCMC St. Louis, (816) 468-9433 x 19

Dwight Hill, SFA, DCMDW, (310)900-6583,

Jim Butcher, 310-512-3261

DCMDE:

Mr. Charles Hurley, (617) 753-4223; e-mail: churley@dcmde.dla.mil

Thomas Webb, DCMC Indianapolis-South Bend

DCMDI:

Mark Young, (703) 767-2288

Services:

Air Force: Ryan Bradley, SAF, (703) 588-7830

Navy: Eric Grothues, OSN, (909) 273-5275

Vito Curci, NAVICP, (215) 697-4234

Army: Steve French, SARDA, (703) 604-7238

Chris Newbert, AMC, (703) 619-5683

DLA:

Duane Rice, (703) 767-2634

FINAL DRAFT

Mr. Gregory Ellsworth, 703-767-1369
Larry Clark, (703) 767-2630

Honeywell:

Barry Cohen , (202) 662-2696, Barry.Cohen@honeywell.com

Vince May, (913) 712-5731, Vince.May@honeywell.com

Scott Selle (602) 231-4924, Scott.Selle@honeywell.com

Trudy Keaveney, (480) 592-7287, trudy.keaveney@honeywell.com

Paul Vernagelli, (505) 828-6618, paul.vernagelli@das.honeywell.com

Bob Kinney, (219) 231-2966, Robert.Kinney@honeywell.com

Bruce Ostrowski, (201) 393-3009, Bruce.Ostrowski@honeywell.com

Doug Rodick, (219) 231-2966, Douglas.rodick@honeywell.com

DAU

Robert Leibrant (703) 845-6791, Leibrar@acq.osd.mil

NOTE: The Services and DLA will participate at their discretion.

FINAL DRAFT

APPENDIX A CHARTER



OFFICE OF THE UNDER SECRETARY OF DEFENSE

3000 DEFENSE PENTAGON
WASHINGTON DC 20301-3000

10 6 DEC 1999

MEMORANDUM FOR SERVICE ACQUISITION EXECUTIVES
DIRECTOR, DEFENSE PROCUREMENT
DEPUTY ASSISTANT SECRETARY OF THE ARMY
(PROCUREMENT)
DIRECTOR OF ACQUISITION BUSINESS MANAGEMENT
(NAVY)
DEPUTY ASSISTANT SECRETARY OF THE AIR FORCE
(CONTRACTING)
DEPUTY CHIEF FINANCIAL OFFICER
OFFICE OF THE DEPUTY GENERAL COUNSEL (ACQUISITION
AND LOGISTICS)
OFFICE OF THE DEPUTY GENERAL COUNSEL (FISCAL)
DEPUTY ASSISTANT INSPECTOR GENERAL AUDITING
DIRECTOR, DEFENSE SECURITY COOPERATION AGENCY
DIRECTOR, DEFENSE FINANCE AND ACCOUNTING SERVICE
DIRECTOR, DEFENSE LOGISTICS AGENCY
COMMANDER, DEFENSE CONTRACT MANAGEMENT COMMAND
CEO, ALLIEDSIGNAL

SUBJECT: Charter for Defense Contract Management Command (DCMC)
and AlliedSignal Quality Assurance Strategic Alliance
Rapid Improvement Team (RIT)

To make our contract administration practices more efficient, DCMC has initiated efforts to improve its approach to quality assurance with selected major suppliers by eliminating unnecessary source inspection and developing alternative methods of assuring quality. As part of the strategy to integrate commercial and military product-lines and processes, DCMC intends to pursue Command-wide innovations and strategies that will result in best business practices within overall management of risks, decreased response times, decreased administrative costs and no impact to product quality.

Through the use of a new acquisition and logistics change initiative called the Rapid Improvement Team (RIT), a cross-functional team will be assembled to assist and rapidly deploy this corporate initiative between DoD and AlliedSignal. This RIT will largely consist of members from the AlliedSignal Corporate Council who are charged to coordinate a strategy acceptable to all stakeholders. Other stakeholders will include key AlliedSignal representatives; Commander, DCMC; Commander, DLSC; and representatives from DLA's GC, DCAA, DFAS, Army, Navy,



FINAL DRAFT

2

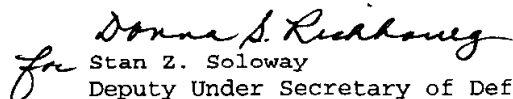
and Air Force, OSD, the Military Services, DCMC, DLA and DFAS. The RIT will be co-chaired by Ms. Jill Pettibone, DCMC; Mr. William Mounts, ODUSD(AR); Mr. William Kenny, DLA; and Ms. Karen Wilson, AlliedSignal.

The RIT will convene December 15-17, 1999, in the Waelchli Center, Building 292 at Fort Belvoir, VA.

I am tasking the RIT to identify a mutually acceptable strategic alliance approach between the Department of Defense and AlliedSignal premised on a near-term, performance-based, implementation plan. They are to report back to me by February 1, 2000, the RIT results and the proposed decision process model for potential application across the Department.

Due to the accelerated timeframe for initiation of the RIT, a preliminary list of representatives has been generated by DCMC. Please forward any additional recommendations to Mr. Peter Angiola, DCMC, not later than December 10, 1999. Mr. Angiola can be reached at (703)767-7504 or by e-mail peter_angiola@hq.dla.mil.

The RIT will be used to accelerate the implementation of a Strategic Supplier Alliance with mutual benefits to both industry and Government.


for Stan Z. Soloway
Deputy Under Secretary of Defense
(Acquisition Reform)

Attachment:
Stakeholder Preliminary Listing

FINAL DRAFT

Stakeholders for AlliedSignal Quality Assurance Strategic Supplier Alliance RIT

Co-Chairs:

DCMC	Jill Pettibone	Jill_Pettibone@hq.dla.mil	(703) 767-2411
AlliedSignal	Ms. Karen Wilson	Karen.Wilson@alliedsignal.com	(973) 455-6569

AlliedSignal:

Roy Boston	Roy.Boston@alliedsignal.com	(201) 393-2624
Jim Camden	James.Camden@alliedsignal.com	(310) 512-3803
Barry Cohen	Barry.Cohen@alliedsignal.com	(202) 662-2696
Vince May	Vince.May@alliedsignal.com	(913) 712-5731
Melba Hayes	HayesM@thorin.atssc.allied.com	
Scott Selle	Scott.Selle@alliedsignal.com	(602) 231-4924

DCMC

Jimm Casey, Commander	jcasey@dcmdw.dla.mil	(480) 592-1012
Mr. Gene Chamblin	Gchamblin@dcmcw.dla.mil	
DCMC Phoenix Scottsdale		

TBD DCMC reps from several other Allied sites

Pete Angiola	DCMC HQ	peter_angiola@hq.dla.mil	(703) 767-7504
Mark Young	DCMDI	mark_young@hq.dla.mil	(703) 767-2288
Larry Clark	DLSC	larry_clark@hq.dla.mil	(703) 767-2630
Chuck Hurley	District East	churley@dcmdw.dla.mil	(617) 753-4223
Randy Sawlsville	District West	Rsawlsville@dcmdw.dla.mil	(310) 900-6522
DFAS	John Heston	john.heston@dfas.mil	(614) 693-4969
Army	* Steve French	frenchs@sarda.army.mil	(703) 604-7238
	Steve Goldstein	sgoldstein@hqamc.army.mil	(703) 617-2235
Navy	* William Meaninch	meaninch.william@hq.navy.mil	(703) 602-2390
	Steve Brandt, NAVICP	steven_brandt@icpphil.navy.mil	(215) 697-2058
Air Force	Ryan Bradley	bradley@af.pentagon.mil	(703) 588-7830
FAA	* Daniel Salvano	Daniel.salvano@faa.gov	(202) 267-3552
	Ken Ward	ken.ward@faa.gov	(202) 267-9080

* Not confirmed

Observers/Support:
Acquisition Reform Office

DCMC	Barbara Foss Fischer	Barbara_Foss-Fischer@hq.dla.mil	(703) 767-1345
DCMC-Rockwell Collins-	TBD		

FINAL DRAFT

APPENDIX B ATTENDEE LIST

Stakeholders for Honeywell Quality Assurance Strategic Supplier Alliance RIT

Name	Organization	Phone	E-mail	12/15	12/16	12/17
Ms. Jill Pettibone	DCMC	703) 767-2411	Jill_Pettibone@hq.dla.mil	X	X	X
Mr. William Mounts	ODUSD(AR)	(703) 614-3882	mountsw@acq.osd.mil	X	X	X
Mr. William Kenny	DLA	(703) 767-3781	William_Kenny@hq.dla.mil			
Mr. Gregory Ellsworth	DLA	703-767-1369	Gregory_ellsworth@hq.dla.mil	X	X	X
Ms. Karen Wilson	AlliedSignal	(973) 455-6569	Karen.Wilson@alliedsignal.com			
Barry Cohen	Allied Signal	(202) 662-2696	Barry.Cohen@alliedsignal.com	X	X	X
Vince May	AlliedSignal	(913) 712-5731	Vince.May@alliedsignal.com	X	X	
Scott Selle	AlliedSignal	(602) 231-4924 fax:231-7354	Scott.Selle@alliedsignal.com			
Trudy Keaveney	AlliedSignal	(480) 592-7287 fax:592-4145	trudy.keaveney@alliedsignal.com	X	X	X
Paul Vernagelli	Honeywell	(505) 828-6618	Paul.vernegelli@das.honeywell.com	X	X	X
Doug Rodick	AlliedSignal	(219) 231-2966	Douglas.rodick@alliedsignal.com			
Bob Kinney	AlliedSignal	(219)0231-2966	Robert.kinney@alliedsignal.com	X	X	X
Bruce Ostrowski	AlliedSignal	(201) 393-3009	Bruce.ostrowski@alliedsignal.com	X	X	X
Jimm Casey	Commander, DCMC Phoenix Scottsdale	480) 592-1012	jcasey@dcmdw.dla.mil	X	X	X
Mr. Gene Chamblin	DCMC Phoenix	(480) 592 5669	Gchamblin@dcmdw.dla.mil	X	X	X
Maj Ellazar	DCMC Santa Ana	(310) 512-5889	gellazar@dcmdw.dla.mil	X	X	X
Steve Jacobs	DCMC Saint Louis	(816) 468-9433 x 19	stephenjacobs@dcmdw.dla.mil	X	X	X
Thomas Webb	DCMC Indianapolis - South Bend	(219) 236-8128	Twebb@dcmdw.dla.mil	X	X	X
Pete Angiola	DCMC HQ	(703) 767-7504	peter_angiola@hq.dla.mil	X	X	X
Mark Young	DCMDI	(703) 767-2288	mark_young@hq.dla.mil		X	X
Larry Clark	DLSC	(703) 767-2630	larry_clark@hq.dla.mil			
Duane Rice	DLSC	(703) 767-2634	duane_rice@hq.dla.mil	X	X	X

FINAL DRAFT

Name	Organization	Phone	E-mail	12/15	12/16	12/17
Chuck Hurley	District East	(617) 753-4223	churley@dcmde.dla.mil	X	X	X
Randy Sawlsville	DCMC West	(818) 267-2003	Rsawlsville@dcmdw.dla.mil	X	X	X
Dwight Hill	District West	(310)900-6583	dhill@dcmdw.dla.mil	X	X	X
John Heston	DCMC Liaison to DFAS Columbus	(614) 693-4969	john.heston@dfas.mil	X	X	X
Steve French	SADRA	(703) 604-7238	frenchs@sarda.army.mil	X		
Eric Grothues	Navy (ASD RD&A)	(909) 273-5275	grothues.eric@hq.navy.mil	X	X	X
Vito Curci,	NAVICP	(215) 697-4234	vito_curci@icpphil.navy.mil	X	X	X
Ryan Bradley	Air Force (SAF)	(703) 588-7830	bradley@af.pentagon.mil	X	X	X
Ken Ward	FAA	(202) 267-9080	ken.ward@faa.gov		X	X
Barbara Foss Fischer	DCMC	(703) 767-1345	Barbara_Foss-Fischer@hq.dla.mil	X		
Jim Kornides	DoD IG	(614) 751-1400 x11	Jkornides@dodig.osd.mil	X		
Chris Neubert	AMC	703-617-5685	Cneubert@hqamc.army.mil	X	X	X
Rob Leibbrandst	DAU	703-845-6791	Leibrar@acq.osd.mil		X	X
Jim Butcher	DCMC	310-512-3261	Jbutcher@dcmcd.dla.mil	X	X	X
Clarence Knight III	DOD IG	614-751-1400 x39	Cknight@dodig.osd.mil	X	X	X
Tom Ray	DLA	703-767-1455	Thomas_ray@hq.dla.mil	X	X	
Gary Hickey	DCMC-OB	707-767-3355	Gary_hickey@ha.dla.mil	X	X	X
Change Management Center Support						
Mike Sherman	TASC	703-558-7400	Mhsherman@tasc.com	X	X	X
Tom McCarty	Motorola University			X	X	X
John Sentz	Motorola University			X	X	X
Leslie Harrington	TASC	703-558-7400	Lcharrington@tasc.com	X	X	X

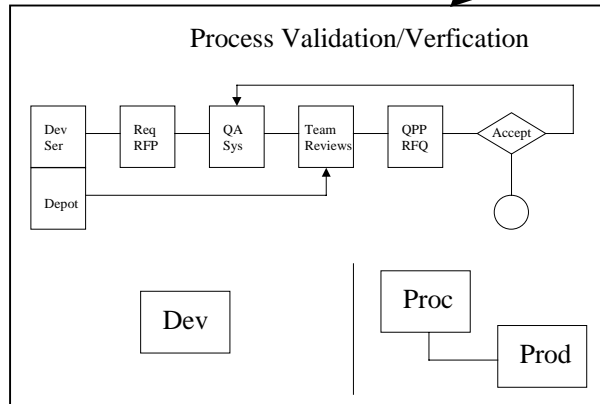
FINAL DRAFT

**APPENDIX C
HONEYWELL FACILITY ANALYSES**

FINAL DRAFT

Albuquerque/Teterboro Facility

Stakeholder Roles	Process Steps				
		RFP	CTR Award		Production Line Operation
PMO		Negotiation (3)	Past Performance & Jobs (6)	Risk Assessments (11)	
Buying CMD ESA	Technical Req Def Requirement Generation/Consolidation (1) Establishes QA Requirements (2)		Awards Contract (7)	May Assign mandatory req to DCMC (12)	
DCMC			CTR Distribution,Tech Reqs Defined (8)	Risk Assessment (System Level & Per Perf (13)	Risk Mitigation Plan (16)
QA		See figure below (4)	Quality Plan (9)	Risk Assessment(14)	
ISO Third Party			Assessment (10)	(15)	
FAA QA		Assessment (5)			



QA System Development Process

FINAL DRAFT

Circuit Card Process Example

Stakeholder Roles	Process Steps											
PMO												
Buying CMD ESA						Review Waivers/ECP (24)						
DCMC		Gov Samples (19)	Gov Insp (Sample) (21)							Final Insp (Data Analysis DD250) (31)		
QA	Raw Stock (17)	Assemble (18)	Insp (20)	Solder (22)	Insp (23)	2 nd Ops (25)	Insp (26)	Test (27)	Conformal Coat (28)	Insp (29)	ATP (Ship) (30)	Go to Inventory (32)
ISO 3 rd Party												
FAA QA												

FINAL DRAFT

Ref	Disconnects	Vote
1, 2	ESA's operate in a vacuum --invoke cancelled specifications --supplier not viewed from a supply chain view	4
3, 4	Quality is not part of the negotiation process --Quality inputs may not be included in review process --No system to track "quality" in past performance data	5
7,8	Local DCMC may not receive new contracts/mods (relies on contractor to provide copy) --any failure of 1-6 above may result in contract surprises --interpretation differences	
10	DCMC does not recognize 3 rd party audits (exception DAS)	1
	Lack of communication or team approach	4
	Production Phase	
	DCMC performs redundant evaluations	5
	DCMC queue time	2
	Contractor support of DCMC activities	
	DCMC inspection points may not be in "best" areas	3
	Variation in DCMC expectations	2
	Source vs destination buy off results in a payment perturbation	3

FINAL DRAFT

South Bend Facility

Stakeholder Roles ↓	← Process Steps →						
PMO Services	Reqmts (QA) generation (Warranty?) Risk Management Plan? (p1)	RFP/IFQ, RFQ, etc. (p2)		Contract Award (p3)	DCMC (p4)	Conducts in process management reviews, includes QA issues (p5)	
DCMC					Review Contract -QA Reqmts - Mandatory inspection All Ks DCMC gets are critical application items. Questions to buying activities unanswered (d1)	Risk Assessment L,M. H (d2)	Issue Risk Handling Policy -Data analysis (L) -Process proofing((H) -Product audits (M,H) -Identify key processes (d3)
Honeywell			Review & Respond to RFP, etc. (h1)	Plan implementation of unique requirements (h2)	Implement unique requirements (h3)	Products product under Honeywell Quality System (h4)	Materials coming in (h5) -Incoming inspection based on Q plan (H5a) Audit of Process 1/year -DCMC -No oversight of incoming parts -Audit process 1/year
Users	Operational Req Reliability Issues U1						

FINAL DRAFT

South Bend

Stakeholder Roles ↓	← Process Roles →								
PMO Services									
DCMC	Implement Risk Handling Plan (once a year check on incoming mil contracts) D4		12 Annual D5 audits		Witness Final testing D6	Source Inspection alternate release (mostly) d7			
Honeywell	Product Parts(h6) Mfg Work: Eng who decides in-process inspection points-floor inspections QA Honeywell audit 3xyr from different angles H6a	Assemble (h7)	Test (h8)	Final inspection (h10) Floor guys To grove	Over inspect (h10) “QA guys” to prime (Boeing, etc.)	Ship (h11)		Tell DCMC that it is here (h12)	Test parts Can’t duplicate defect-send back to customer (h13)
Users							Customer Feedback/returns (u2)		

FINAL DRAFT

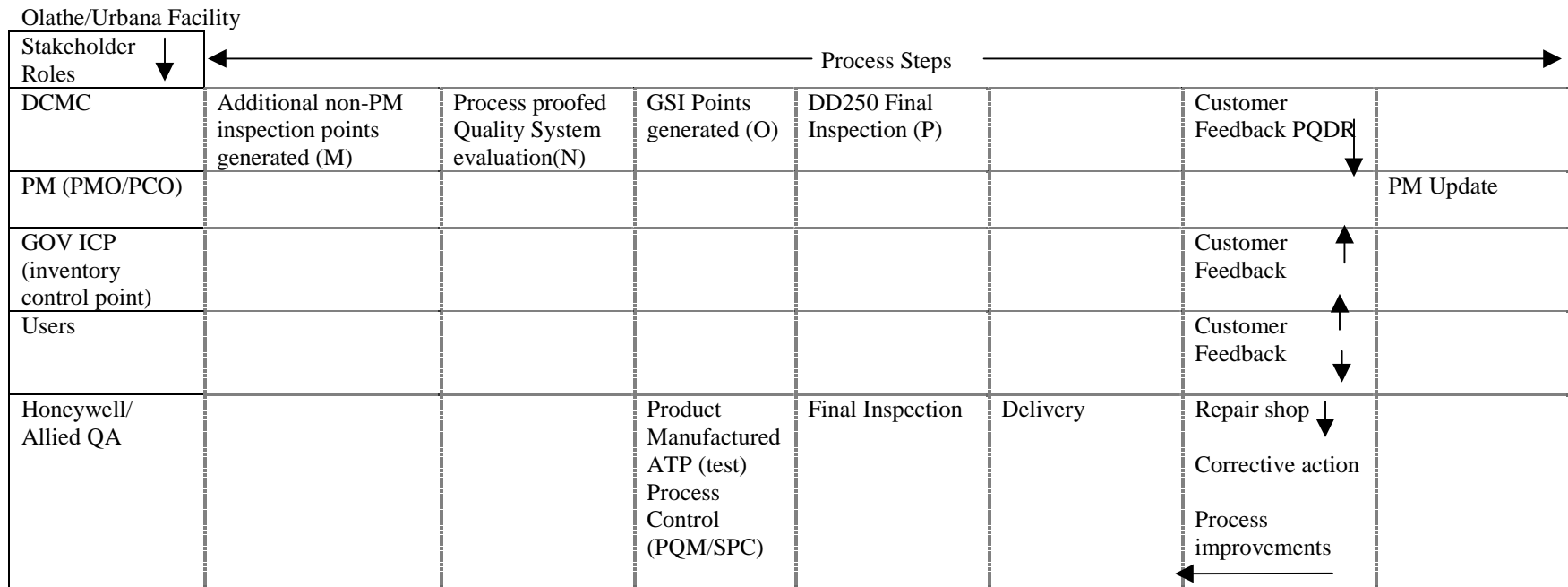
Ref	Disconnects	Vote
P1	Ill-defined requirements “boiler plate)	0
P2	Little or not DCMC input – No IPT --Maybe no input from users on PQDRs --QA not used a lot or much in evaluation	2
P4	Sometimes DCMC gets contract too late to do anything	1
D1	Hard for DCMC to challenge requirements-sometimes hard to get PMO to answer, customer sometimes gets upset with questions. Communication by PMO and DCMC offices at prime’s locations of what they think is critical and why 1) PMO Del 2) DCMC/CAO Deleg	6
D2/D3	Not done with contractor or PMO or prime CAO. But sometimes PMO doesn’t want to be involved. Do data analysis jointly with KR	3
D4	1) Should audits/inspections/etc. be synced up with what contractors does 2) Reduce duplication or redundancy? 3) Consistency across sites	5
D5	Rely on KR audits maybe instead of DCMC doing themselves Hard to understand contractor data? --DCMC people may not know who to do right review and analysis	0
H1	Suppliers sometimes don’t want to question solicitations for fear of not getting business	0
U2	1) PQDRs don’t always get fed back to PMO processes for use in future buys 2) Customers don’t always follow PQDR process or are unclear. Customers don’t always send PQDRs. 3) Returns process no always well thought out	6

FINAL DRAFT

Olathe/Urbana Facility

Stakeholder Roles ↓	← Process Steps →						
DCMC				Pre Award Survey(f)		Post Award Conference (J)	QALI Received(L)
PM (PMO/PCO)	Design FMCA, Certification analysis (A)	Gov required GSI required (y/n) CoC (y/n) Destination (y/n) ARP y/n (b)	RFP or RFQ Generated (D)	Supplier selection(G)	Contract Review (H)	QALI (quality assurance letter of instruction (K)	
Gov ICP (inventory control point)							
Users		Issue Requisition (C)					
Honeywell/ Allied QA			Quotation generation(E)	Contract Acceptance (I) -Make/Buy -Supplier selection -Supplier oversight -Supplier Delivery Long term Agreement Management		Factory instructions generate inspection points	Receiving inspection Dock to Stock

FINAL DRAFT



FINAL DRAFT

Ref	Disconnects	Vote
A	1) Communication with contractor history from previous designs	
B	1) Little communication on history of contractor between DCMC and PM/ICP 2) Made wrong selection of inspection requirements (source vs destination vs CoC vs ARP) 3) ICP don't want to give CoC because of distrust of DCMC and contractors	
C	1) Users don't know what they want and order the wrong thing 2) Purchase description different than catalogue	
D	1) Errors from over specification	
E	1) One or both parties misinterpret the requirements 2) Contractor did not read the specification 3) Missed changes	
F	1) Failure to request a survey 2) Failure to include all parties in the survey 3) Failure to use past performance data 4) Lack of performance data 5) Failure to use information from the survey	
G	1) Past performance data not uses 2) All of the above	
H	1) Too complicated 2) Too much boiler plate 3) Too large 4) Too small	
I	1) See E	
J	1) PCO/ICP/PMO don't participate	
K	1) QALI not specific 2) QALI too vague 3) History not used to determine key characteristics	
L	1) DCMC does not challenge the QAI 2) Challenge ignored by PM 3) Contractor not involved	
M	1) Non-value or value added inspections added 2) Miscommunication between DCMC and PM	
N	1) Not needed on most products	
O	1) Source inspection point missed by the contractor	
P	1) Incorrect DD250 2) Data in DFAS and MOCAS are different. Does not reflect proper contract and modifications 3) People won't sign-off at destination 4) Copies not sent back to contractor and DCMC 5) DD250 paid on wrong line item	

FINAL DRAFT

Stakeholder Roles ↓	Tempe ← Process Steps →						
	Generate Reqts (1)	Issue RFO (2)		Award contract delegate to DMCM (4)			
PMO/PCO							
DCMC			Review RFP/RFQ and respond to PCO(3a)		Contract Review (5a)	Post Award (6)	Planning GPA(7a) Data---Ins--y-- Id Pts N Nothing
Allied/ Honeywell			Review RFP/RFQ and quote/proposal (3b)		Contract Review (5b)		Planning (7b)
Subcontract							
User							
DFAS							

FINAL DRAFT

Tempe										
Stakeholder Roles ↓	Process Steps									
PMO/PCO										
DCMC	Review ongoing PO (8)			In process i.e., ATP, etc (13)	Sub source (16)			DD250 Final insp (20)		
Allied/Honeywell	Make or buy (9)		Release for production (11)	Mgf Insp (14)			Receive products (19)		Final Ship Customer (21)	
Subcontract		RFQ/RFP (10)	Po (12)	Mgf (15)	Source (17)	Ship (18)				
User										Field displacement & history
DFAS										Show me the money (22)

FINAL DRAFT

Ref	Disconnects	Vote
2	1) No DCMC involvement 2) Flow down clauses don't fit product 3) Not enough DCMC involvement 4) Suppliers does not agree with T&Cs 5) Need joint review	
3	Ensure Resource Capabilities 1) Contractor 2) DCMC 3) Contract interpretation 4) Inadequate review 5) Inadequate flow down	
7	Standardize processes health metrics in planning stage 1) Common set of metrics (be in concert with DCMC) 2) Consistency-Ultimate customer, DCMC & Contractor	
5b	Contract review at contractor 1) Inadequate review 2) Inadequate QA participation 3) Flow down to subcontractor questionable	
7b	1) Capability to build product 2) Disconnect between contract review and manufacturing and/or procurement	
20	1) Field feedback to DCMC is inadequate between customers 2) All 3) No visibility/communication	
22	DD250 1) Bottleneck due to end of month crunch (60-70% of shipments presented for buy-off) 2) Accuracy of DD250	

FINAL DRAFT

APPENDIX D SIX-SIGMA BRIEFING

Note: The Six Sigma type charts (below) are for illustrative purposes only, are very brief, and are not meant to fully describe a statistically sound Six Sigma methodology.



A New Approach to Delivering Quality Products to Customers

Presented to
**DCMC/AlliedSignal SSA
Quality RIT**

16 December 1999

Traditional Quality Methods Relied On Inspection/Test

- Receive material from suppliers, inspect, accept/reject, stock and move to production
- Produce product and inspect/test at various point during production
- Accept the product that passes inspection/test and ship to customer
- Rework failed product until it passes

Motorola University; All Rights Reserved 1999



No test/inspection is 100% Effective in Finding Defects

- Inspection/Test is Only 80% Effective
- Defects which escape test/inspection within the process will be delivered to the customer
- Delivered defects are directly proportional to the total number of defects created by the entire process

Motorola University; All Rights Reserved 1999



Latent Defects Not Found by Inspection/Test

- Are abnormalities that will cause a failure at some future time, depending on degree of abnormality and amount of applied stress
- May result in early life failures
- Are directly proportional to the total number of defects in the entire process

Motorola University; All Rights Reserved 1999



Rework Reduces Product Quality and Reliability

- Rework results in added stress, handling and introduction of defects
- General Electric is recommending less frequent maintenance on engines to reduce failures
- Products that are produced defect free fail less frequently during their life cycle
- Product quality is controlled by robust processes

Motorola University; All Rights Reserved 1999



A Greater Design Margin Will Result Better Quality and Reliability

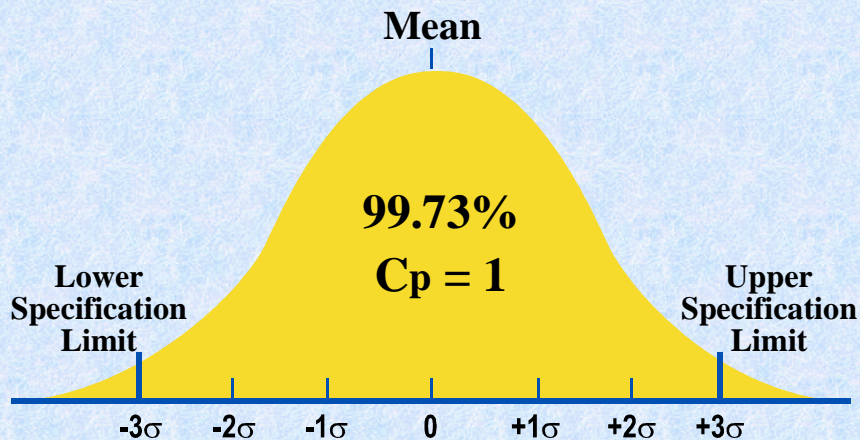
- Design margin is measured by Capability Index (C_p), where:

$$C_p = \frac{\text{Maximum Allowable Range of Characteristic}}{\text{Normal Variation of Process}}$$

Motorola University; All Rights Reserved 1999



Normal Distribution of a Key Product Characteristic



Motorola University; All Rights Reserved 1999



$C_p = 1$ is not acceptable

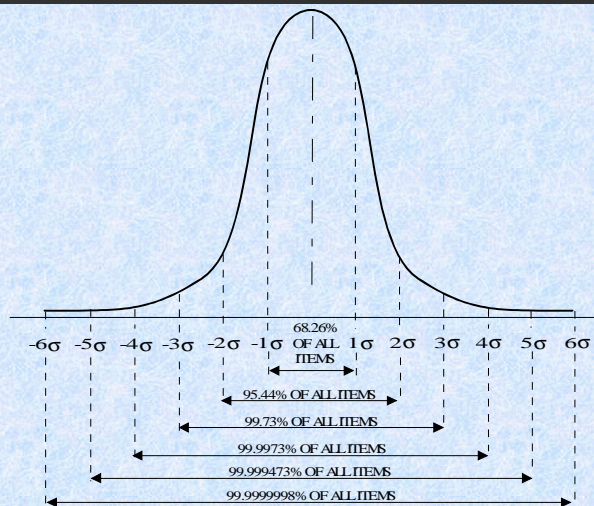
**Product or process with 10,000
opportunities where $C_p = 1$
results in**

27 defects

Motorola University; All Rights Reserved 1999



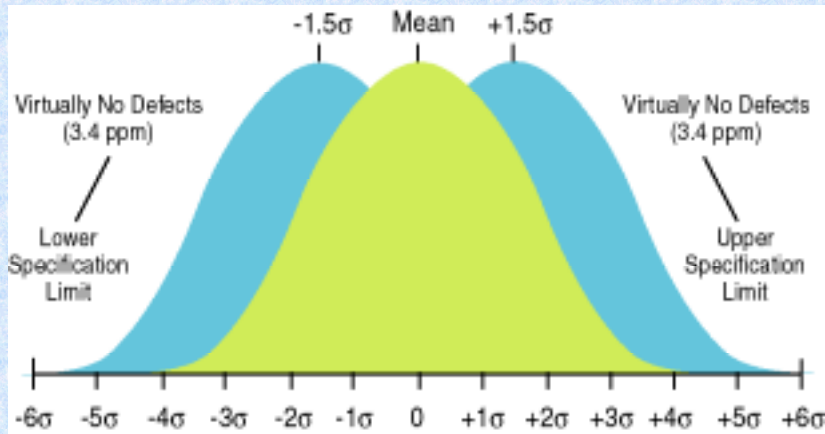
THE SIX SIGMA CONCEPT ASSUMES A NORMAL DISTRIBUTION OF PROCESS VARIABLES



Motorola University; All Rights Reserved 1999



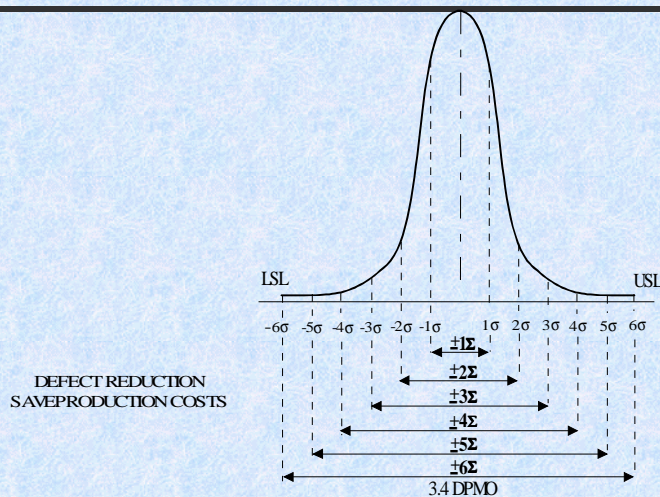
Processes Will Shift Over Time



Motorola University; All Rights Reserved 1999



SIX SIGMA ACTIVITY REDUCES THE PROCESS VARIATION TO GET HIGHER QUALITY AND LOWER COSTS



Motorola University; All Rights Reserved 1999



Statistical Process Controls (SPC) are Used to Monitor Process Quality

- Control limits are set within the specification limits
- Variable data is taken and monitored to verify process is in control
- When shifts in data occur, corrective action can be taken prior to creating a defect

Motorola University; All Rights Reserved 1999



Attribute Data Shows No Failures or Problems

PAF Capacitor Voltage

Sample size	=	3291 units
-------------	---	------------

# Pass	=	3291
--------	---	------

# Fail	-	0
--------	---	---

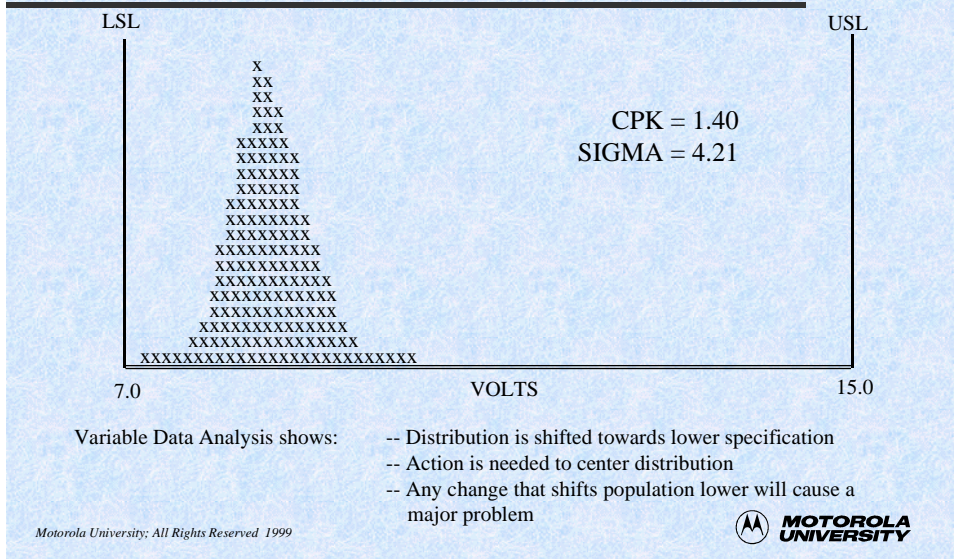
Attribute Data Analysis Shows:

- no failures
- no error signal
- no corrective action required

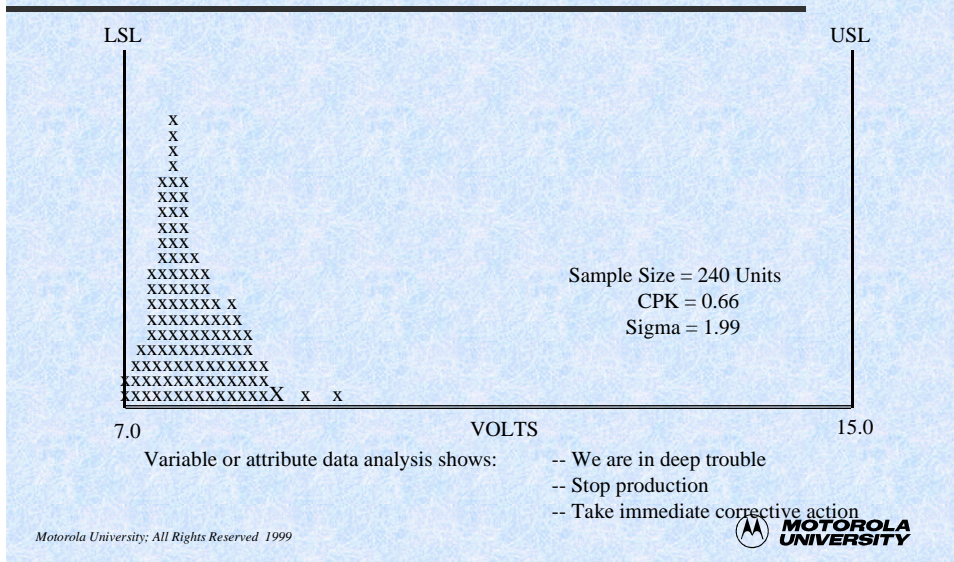
Motorola University; All Rights Reserved 1999



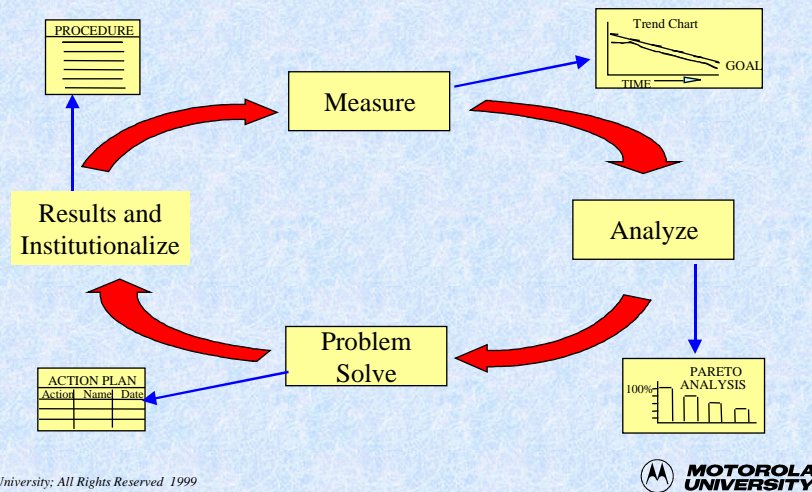
Variable Data Shows a Shift in the Data



Review of Variable Data Would Have Prevented Defect



Continuous Improvement is a Key Driver of Six Sigma



Effectively Utilize the Limited DCMC/ Contractor Resources

- Reduce/ Eliminate after the fact inspection and test
- Ensure robust processes are developed and used
- Monitor processes to ensure they are in control
- Develop a methodology to jointly work on continuous improvement

FINAL DRAFT

APPENDIX E LIST OF ABBREVIATIONS

AAQG	
APB	Acquisition Program Baseline
ARP	Alternative Release Process
ATP	Acceptance Test Plan
CAO	Contract Administrative Office
CMC	Change Management Center
CP	Process Capability
CP _k	Process Capability Index
CTR	Contract
DAU	Defense Acquisition University
DCMC	Defense Contract Management Command
DFAS	Defense Finance and Accounting Service
DVD	Direct Vendor Delivery
ECP	Engineering Change Proposal
ESA	Engineering Source Activity
EVAMS	Earned Value Measurement System
FAA	Federal Aviation Administration
FAI Plans	First Article Inspection Plan
FMEA	Failure Mode and Effects Analysis
GSI	Government Source Inspection
ICP	Inventory Control Point
IPT	Integrated Product Team
MNS	Mission Needs Statement
ORD	Operational Requirements Document
OSD	Office of Secretary of Defense
PCO	Procurement Contracting Officers
PMO	Program Management Organization
PQM	Process Quality Management
QA	Quality Assurance
QALI	Quality Assurance Letter of Instruction
PQDR	Quality Deficiency Reports
RFI	Request for Information
RFP	Request for Proposal
RFQ	Request for Quote
RIT	Rapid Improvement Team
ROD's	Report of Discrepancy
SBU	Strategic Business Units
SPC	Statistical Process Control
VOC	Voice of the Customer

FINAL DRAFT

APPENDIX F NOTIONAL ACCEPTANCE AND PAYMENT PROCESS

The Acceptance and Payment Processes were discussed during the Rapid Improvement Team. The Team members brainstormed and developed a notional map of the payment process shown below and a preliminary analysis of the stakeholder roles and process steps. Although not complete in its description, the Team agreed the quality functions are totally independent of the payment processes are separate and distinct. Therefore, it was concluded that the Team lacked the necessary expertise to fully address the payment process and decided to defer further discussions to a follow-on RIT.

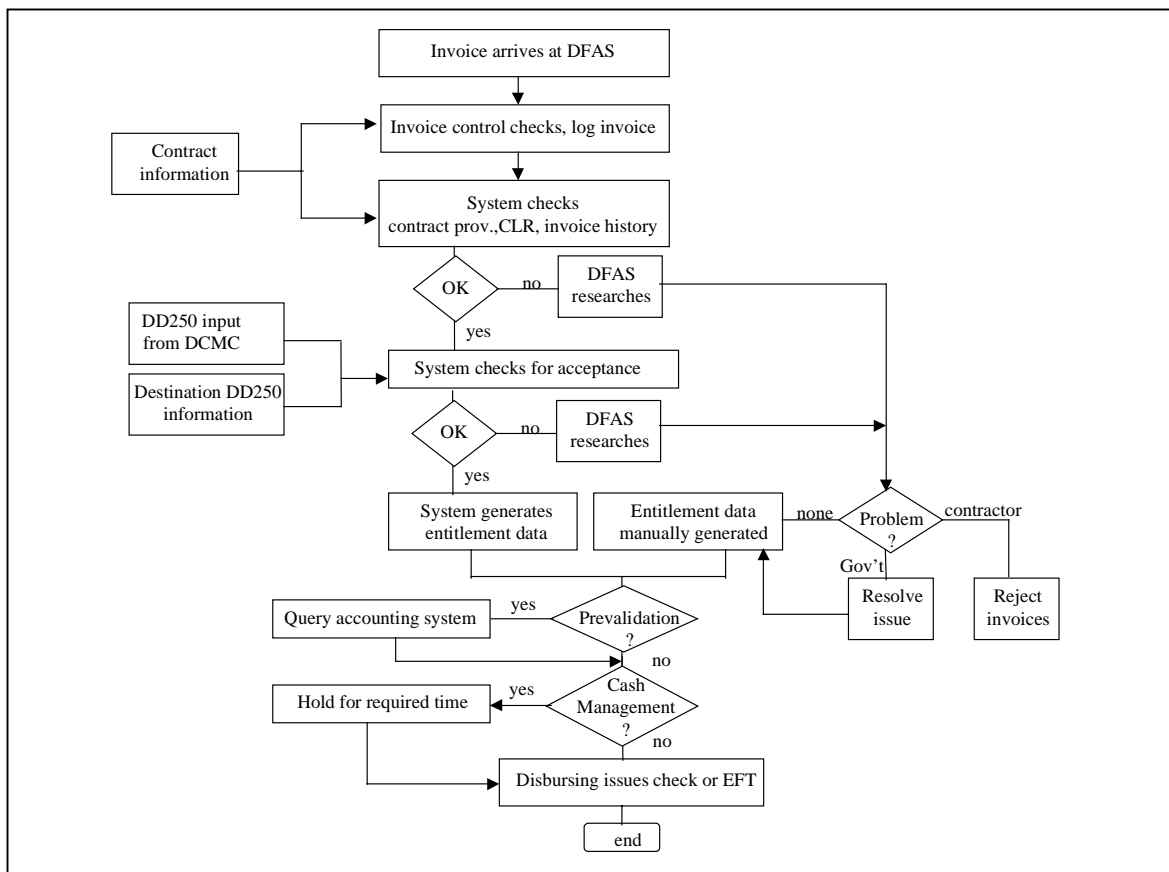


Figure 6. Payment Process Overview

FINAL DRAFT

Phase IV - Acceptance & Payment Process

- Prompt payment through alternative release processes
- Provide needed controls to preclude bottleneck of DD250s



Stakeholder Roles ↓	Process Steps →				
PM PMO/PCO					
Buying CMD ESA					
DCMC			Sign QAR DD250 using ARP (3b)	Terminal inputs DD2250	
QA (get ARP authorization)	(1) Product tendered destination (origin)	(2) Prepare DD250, distribution CAO copy to QAR Ship Product	(3a) Send invoices to DFAS		
DFAS				Performs verification (4)	Pays invoice (5)

Sub Process: Acceptance and Payment
Activity #: 1 ARP Authorization
Description: CAO considers continuity of production and contractor's record of quality and decides whether to authorize ARP at factory level
Steps to Completion: -- Review production history -- Review results of QA activities (risk assessment, data, etc.) and determines if record is satisfactory --if OK authorize --if not, work with contractors to implement corrective action plan
Supporting Tools/Documents: -- Risk assessment results, six-sigma data, etc. -- Customer feedback -- DFARs 246.471